LEADING AND LEARNING: AN EXPLORATORY STUDY OF TEACHERS’ EXPERIENCES IMPLEMENTING CHANGE THROUGH A PROFESSIONAL LEARNING COMMUNITY

By

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Abstract

The purpose of this basic qualitative practice-based study was to explore teachers’ experiences, as members of a PLC, tasked with the planning and implementation of a new teacher evaluation system in a small (Pre-K – 12) school district. To fulfill this purpose, three research questions were formulated as the foundation for this investigation: a/ How do PLC members’ describe the purpose of a PLC tasked with implementing a new teacher evaluation system? b/ How do PLC members’ describe their experience of learning through the process of collective inquiry? And c/ How do PLC members’ describe their experience as leaders in this change effort? Data included twenty-six semi-structured interviews, observations, and survey data. Data were analyzed using general inductive analysis and included multiple coding strategies. The participants were drawn from the District Evaluation Advisory Committee (DEAC) who was tasked with selecting an approved teacher evaluation system from a list of state approved models.

Using systems change and distributed leadership as conceptual frameworks, results indicated that learning and leadership occurred with feedback loops that created two-way communication both within and outside the PLC. Systems change took place through a series of phases; first impacting the knowledge and practice of PLC members, later their teaching colleagues, and finally the entire school environment. This research is relevant to the type of organizational change that school districts in New Jersey are faced with given the “Teacher Effectiveness and Accountability for the Children of New Jersey Act (2012).” The findings indicate that using PLCs to lead school change is a powerful option.
Acknowledgements

The development of this doctoral dissertation has been a journey of my heart and soul. I have traveled into valleys of despair and over mountains of exuberance. My passion and persistence in completing this path has provided me with a deeper understanding of the importance of learning, leadership, and community. This same determination has given me a greater sense of who I am and what really matters to me. Undoubtedly, promoting learning and leadership in education, as well as a strong and caring learning community, is my vision, and this research affirms that.

The completion of this project has been made possible by strong and supportive individuals. My husband, Tom, has patiently cheered me on during the best and worst moments in this work. My sisters’ Jil and Lana, brother Mark, and my Dad, have remained by my side throughout, inspiring my hope and my fortitude. My Mom’s spirit (and the Janice in my name) has been with me daily pushing me to achieve my dreams and realize my goal. My Northeastern advisers’ Dr. Elizabeth Mahler and Dr. Elisabeth Bennett have encouraged me to “put my best foot forward” with their constructive criticism, patience, and encouragement. My dear friend and assistant, Barbara Hall has been my technology guru helping me every step of the way with the processing of this thesis document. The many other souls both personal and professional that have encouraged me throughout this project are thanked quietly in my heart.

This journey ends at a very different place then where it began. I am at peace in knowing that my study has truly provided something bigger than I could have dreamed. This research can inform change in school districts. It can make a difference for children and learning. It can also provide a ‘change path’ for individuals and organizations striving to arrive at a professional place that improves upon the educational status quo.
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CHAPTER 1: INTRODUCTION

Overview

The No Child Left Behind (NCLB) Act, adopted as law in 2002, has become the centerpiece of federal education policy, placing the federal government in a position of being the chief enforcer of performance-based accountability at the state and local level (Elmore, 2004). Since being enacted, NCLB required state education systems to make significant changes in aligning strategies, structures and processes to federal mandates (U.S. Department of Education, 2002). For example, the development and implementation of new curriculum standards for students, state mandated assessments, centralization and decentralization initiatives, and a wide array of regulations and special programs in public schools were all focused on the improvement of student learning.

In 2011, the U.S. Department of Education offered states the opportunity to apply for Race to the Top (RTTT) grant funding to support an Elementary and Secondary Education (ESEA) Waiver Request (the former title of NCLB) in order for states and school districts to be relieved of certain sanctions and corrective actions (e.g., parent notification of performance status, public school choice, supplemental educational services, improvement plans) under NCLB. In order to receive funding, states would need to adopt the principle (in the Waiver), of “supporting effective instruction and leadership” (ESEA Waiver Application, 2011). This required that states convene a design and review committee of local superintendents, principals, school leaders, and representatives from higher education to develop a rigorous state-level teacher and leader evaluation system that (1) incorporates student growth data on state year to year assessments along with performance on intra-year interim assessments; (2) requires evidence of high-quality classroom instruction, as measured by evidence-based classroom observation protocols;
(3) incorporates feedback from formative classroom observations; (4) aligns with national and State Standards for Teachers and School Leaders; and (5) allows for local determination of additional performance metrics, not to exceed 15% of the total weight criteria (State of NJ DOE, 2012). The key act of supporting effective instruction and leadership was the implementation of research based teacher and leader evaluation systems by 2013-2014. Local Education Agencies across the US will be mandated to annually report to their State Education Agency and to the public, beginning no later than the 2014–2015 school year, on the aggregate distribution of teachers and principals on four performance levels: highly effective, effective, partially effective, and ineffective (State of NJ, DOE).

In the state of New Jersey, the location of this study, Governor Christie issued an Executive order on September 28, 2010 establishing an Education Effectiveness Task force. This nine member task force with experience in education policy, administration, and teaching were charged with recommending an educator evaluation system. They met twelve times between November 16, 2010 and March 1, 2011 to gather research on educator evaluation systems, and to examine systems in use both in the state and nationally. The task force also studied a range of issues related to the development of high-quality evaluation systems, such as observation protocols, growth measures, and special education considerations. The result was the development of a comprehensive teacher evaluation framework for the new teacher evaluation system made up of 50% teacher practice and 50% student achievement (NJ Educator Effectiveness Task Force, 2011), Figure 1.1.
Districts in NJ were required to have all teachers and administrators trained in the new protocol by the summer of 2013, with complete implementation expected during the 2013 to 2014 school year. In order to meet these timelines, the implementation required significant changes in learning and leadership on the part of both teachers and administrators. First, changes in learning required teachers and administrators to collaboratively question the status quo, exchange information on new teaching strategies, test out (and evaluate) new teaching behaviors, and reflect on the results. Second, changes in leadership required teachers to take on new roles and responsibilities in leading change, for example building trust through shared leadership arrangements, and sharing the responsibility for leading professional development opportunities for teaching colleagues. These increased responsibilities added perceived elements of risk to every day teaching and leadership practices. These changes presented a challenge since schools have typically been organized in a hierarchical structure, with change initiated in a top down manner (Harris, 2008). DuFour and Eaker (1998) affirm that those who seek to initiate change must recognize that an existing educational system with a well-entrenched structure and culture is already in place; and these systems will be most successful in fostering exploration of change as
part of a collaborative cultural transformation rather than as a response to painful, top down change. One area where cultural transformation can occur is through the teacher professional development process, which was a key focus of this study (Darling-Hammond & McLaughlin, 2011).

During the life cycle of practice, teachers’ are exposed to a variety of professional development experiences which may include expanding knowledge of subject area content, teaching methods, and the use of new technologies. Darling-Hammond (2012) affirms that professional learning opportunities must be of high quality, and that teachers should have access to the kind of sustained, focused learning that has been demonstrated to improve practice. The National Commission on Teaching and America’s Future (1997) affirm that professional development investments are paltry, and most districts’ offerings, limited to “hit and run” workshops, do not help teachers learn the sophisticated teaching strategies they need to address very challenging learning goals with diverse student populations. Additionally they report that teachers have little time to plan, collaborate, and learn from each other as most teachers in the nation have only three to five hours a week to prepare their lessons, which is done in isolation from colleagues.

Darling-Hammond (2012) agrees that high quality professional development opportunities should be connected to teachers’ collaborative work. Furthermore, this vision alters what, when, and how a teacher learns, and requires a fundamental change in the institutional structures that have governed schooling (Darling-Hammond & McLaughlin, 1995). This type of institutional change is referred to as whole systems change, which requires teachers to be fully engaged in the change process with a high degree of ownership regarding the outcomes (Harris & Jones, 2011).
This deeper level of engagement places teachers within the context of assisting with change efforts, by learning new instructional strategies, and by taking on new leadership responsibilities.

One promising practice that has been explored as a vehicle for implementing systems change is utilizing the expertise of teachers as leaders; sharing and exchanging information in professional learning communities. The sharing of expertise in professional learning communities is an emerging form of professional development, which may help drive the change required by the implementation of a new teacher evaluation system (Darling-Hammond, 2012). Morgado and Sousa (2010) posit that effective implementation of teacher evaluation can be used as a source of both individual and organizational learning that may foster consensus and a sense of shared responsibility in improving schools. Professional learning communities (PLCs) are referred to within the school improvement literature (e.g., Rosenholtz, 1989; Stoll et al., 2006; Little, 1990) as demonstrating a positive contribution to system-wide improvement (Harris & Jones, 2011). Professional learning communities (PLCs) are defined as a team of educators with a shared mission, who work collaboratively in ongoing processes of collective inquiry (questioning the status quo, seeking and testing new methods, and reflecting on results), to lead development work with the collective responsibility to improve teaching and learning (DuFour & Eaker, 1998; Harris, 2003; Hord & Hirsh, 2008; Kennedy, Deuel, Nelson, & Slavit, 2011; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Professional learning communities have been referred to as transformative practices that use democratic and relationally bound communities to learn together with a shared purpose (Servage, 2008).

Fulton (2010), Director of Reinventing Schools for the 21st Century (National Commission on Teaching and America’s Future), in her research synthesis of STEM (Science, Technology, Engineering, & Math) teachers in PLCs, affirms that each of the components in the
term “Professional Learning Community” should be fulfilled in order to regard it as a PLC:

“professional – engaging educators in the development of their professional practice; learning – focused on both the learning of the educators and the learning of their students; and community – which requires common vision, goals, purpose, and a shared sense of trust as well as collaborative work” (p. 6). This iteration of the term, informs the purposes and functions of PLCs.

Research indicates that learning new instructional practices, and sharing the responsibility for leading learning opportunities for teacher colleagues, requires changes in leadership arrangements (Bernard, 1938; Spillane, Halverson, & Diamond, 2001, 2004). As a mechanism for both individual and collective learning, PLCs share and question their practice, in reflective, collaborative, and growth promoting ways (Mitchell & Sackney, 2000; Toole & Louis, 2002). This type of collaborative work, however, requires schools to acknowledge and leverage the expertise of teachers, empowering them to take on leadership roles. These leadership roles may include researching new practices, synthesizing information, problem solving, and decision making that are shared by PLC members. A fundamental component of PLCs is the sharing or distributing of leadership, as opposed to the current hierarchical leadership structure. The PLC structure allows for collaborative inquiry, and requires distributing leadership within the PLC as they learn and plan together (Timperley, 2005). Distributed leadership is defined as leadership that is stretched over knowledgeable individuals in the organization, and includes teachers who are empowered based on their expertise (subject knowledge, pedagogical skills, and self-knowledge of what one does well and what one needs to learn) to become a source of leadership in their schools for the purpose of improving teaching and student learning (Bernard, 1938; Spillane, Halverson, & Diamond, 2001, 2004). Leadership may be distributed in PLCs, as teachers’ take on roles that support the vision and purpose of their work. Distributed leadership
provides the infrastructure that holds the professional community together, as it is the collective work of educators at multiple levels that creates and sustains it (Harris & Jones, 2011).

In this study, PLC members engaged in collective inquiry to learn new practices and reflect on these practices. It explored the individual learning and leadership experiences that occurred within a PLC as its members learned together, and then facilitated the learning and implementation, of a new teacher evaluation system in a New Jersey school district attempting to meet the timeline requirements imposed by the federal mandate. By studying the individual perceptions of teachers’ given the opportunity to reflect on their experiences as members of PLCs, the researcher explored how learning and leadership through PLC membership may be a vehicle for organizational change.

Understanding how the use of PLCs may impact change, could benefit the K-12 education community as it attempts to systematically implement new teacher evaluation systems. It may also serve as a method (the use of PLCs), for focused professional development that promotes and sustains the learning of all professionals in the school community with a collective purpose of improving instruction and student learning.

**Conceptual Framework**

This study explored the learning and leadership experiences of teacher PLC members tasked with implementing a systems change: a new teacher evaluation system. Since this study was practice-based, a description of the district situation is included here. Four school level PLCs (comprised of 16 teachers) were assigned the task of turn-keying training on a new teacher evaluation system to colleagues (comprised of 240 teachers) in their buildings over an eight-month period during the 2012 - 2013 school year. Turn-key training is a process whereby PLC members received instruction on the Marzano Causal Teacher Evaluation Model (2011) content
by Learning Sciences, the training consultants for Marzano Research Laboratories. The PLC members then spent time in their buildings after the training; processing, discussing, and reflecting on this information, with the goal of delivering, or turn-keying this content to their teacher colleagues during three district in-service days.

The conceptual framework that follows will inform how this phenomenon, the use of PLCs as a vehicle for the implementation of educational systems change, was explored. The framework includes key ideas from Organizational Change theory and Distributed Leadership theory. These theories support the work of professional learning communities.

**Organizational Change Theory**

The theoretical rationale underlying the grouping of teachers into professional learning communities as a means of learning and leading the learning, of a new evaluation system, can be viewed through the lens of organizational change theory. The theoretical foundation of organization change in this study is open-systems theory which stems from the discipline of cell biology (Burke, 2008, Capra, 1996). Like an open system, a school district maintains itself through a continuous inflow and outflow of energy (Burke, 2008). For example in this study, the external environment (macro change – new teacher evaluation system-inflow) gets transformed into output, that is, organizational performance and individual development (Burke; Porras & Silvers, 1991). The open system causes change when new legislation is passed or new concepts become available that can be applied to this local system. As a reaction to this inflow (new legislation), PLCs were established by the district as an organization change intervention to lead the change. The phenomenon explored, was the learning and leadership experiences at the individual level as a result of membership in PLCs. Since this was practice-based research,
driven by an external environmental change mandate, which impacts internal organization change, studying the constructs through a change model informed the research.

Harris and Jones (2011) argue that educational system wide change is only possible through entire system collaboration, with a focus on pedagogical improvement. Organizational changes advocates (e.g., Fullan 2008a, 2008b; Fullan & Hargreaves 1996; & Fullan, Hill, & Crevola, 2006) affirm that school transformation is a complex task that needs to be embraced collegially throughout the system. Nelson (2008) argues that an essential component of PLC work is teachers’ development of an inquiry stance. This inquiry stance involves knowledge negotiation as teachers develop common understandings about learning and teaching practices; and it is within this collaborative inquiry that the potential for transformation occurs (Nelson).

Rather than rejecting ideas outright or accepting ideas from another based on perceived authority or expertise, teachers adopting an inquiry stance ask questions, and seek to understand, by collaborating with others to answer the questions (Wells, 1999). This process of critical inquiry is not a common characteristic of school culture or professional development (Ball & Cohen, 1999; Sarason, 1996). Wilson and Berne (1999) affirm that “teachers have little experience engaging in professional discourse that is public and critical to their work and the work of their colleagues” (p. 161). Thus transforming schools such that PLCs are embraced, as well as produce collaborative inquiry requires a culture change in the norms and values of the school (Fullan, 2000). This change may be imposed by an event, or intervention, outside of the school system, such as new legislation regarding the implementation of a new teacher evaluation system.

A Model for Organizational Change

Porras and Silvers Planned Process of Organizational Change Model, see Figure 1.2, demonstrates an open system theory of planned change that proposes a process of how
organization change occurs. The model begins with change interventions that are intended to affect certain target variables, which in turn affect individual members’ cognition and behavior, and ultimately improve organizational performance and individual development. Porras and Roberts (1992) affirm that organizational members are both actors and reactors to phenomenon; thus in order to induce a desired action both cognition and behavior need to change.

*Figure 1.2 Planned Process of Organizational Change (Porras and Silvers, 1991)*

The change process in the model (Porras and Silvers, 1991) begins with some type of intervention that is intended to affect an organization’s vision (an Organization Transformation intervention), or an intervention aimed at changing aspects of the work setting (an Organization Development intervention). The macro change intervention in this study is the mandated teacher evaluation system implementation. This intervention may impact both the vision (beliefs regarding collaborative learning and leadership) and work setting (small group collaboration in the form of PLCs) of the organization. Since a PLC is an intervention that establishes a new organizing arrangement for individual learning and leadership, this change intervention may be
viewed as a catalyst for changes in learning (cognition), behavior, and ultimately enhanced individual performance.

For example, the establishment of PLCs, tasked with learning and leading the implementation process was a direct result of the macro change. The PLCs as a change intervention required a new work setting as teachers were situated in a remote location such as a conference room. This work setting was equipped with technology used to build presentations, and it allowed teachers to learn the evaluation model through collaborative inquiry, and to plan the delivery of it together. Teachers interacted socially by sharing and exchanging professional ideas. This PLC change intervention created a new vision for leadership and learning (collaborative) as well as possible changes in individual learning and leadership experiences, the unit of analysis for this study. According to the model, the intervention (PLCs) and work setting affect organizational members’ thought processes (cognition) on any one level or at multiple levels; alpha, beta, or gamma changes and thus impact behavior in the form of change, or enhanced individual development. Thus individual learning may be tied to enhanced individual development (organizational outcomes) using PLCs as a change intervention. In this model scenario, school performance would be based on the aggregate teacher evaluation data compiled at the end of the 2014 school year.

Burke (2008) argues that initially, organization change may not occur in this linear manner. For example, although cognitive change can precede behavior change, most of the time, and particularly the more emotional the situation is, it is the other way around. That is, behavior comes first (how), then cognition (what). In this study, teachers had the opportunity to engage in collective inquiry on the new strategies in PLCs. However, the implementation of new classroom strategies (behavior change) did not take place until PLC members had the chance to practice the
strategies as part of a lesson, in their own classrooms. Thus, true understanding of the new strategies occurred only after they were used. Ultimately, after seeing the results of their teaching behavior and how it impacted student learning, the change in their mental set (cognition) took place (Burke, 2008). These practice opportunities enriched the shared collaborations in the PLCs by providing real life examples of how the strategies worked. Given the non-liner nature of change (Burke, Weick & Quinn, 1999), it was anticipated that as the learned new behaviors were practiced over time and reinforced by administrators’ evaluation feedback and improved student learning, PLC members embraced these strategies because they believed they were effective. This would eventually lead to behavior change followed by cognition change as displayed in the Porras and Silvers (1991) model.

Criticisms of the Porras and Silvers (1991) model have been acknowledged by Burke (2008) and Weick and Quinn (1999). Burke (2008) writes that the model is a linear depiction of how organization change occurs and that in order to account for change at the larger, complex organization level, theories and concepts that are nonlinear should be considered (Weick & Quinn). Weick and Quinn describe the process as messy and difficult to sustain, and suggest that organizational change be thought of as a series of loops, taking initiatives, than looping back to correct details missed on the first attempt. This non-linear looping and spiraling may accurately describe the learning that takes place in PLCs charged with the implementation of the teacher evaluation system in this study. For example, after each PLC professional development session facilitated by Learning Sciences consultants; surveys were completed, feedback was compiled, shared, and discussed by PLC members, who used it to more deeply understand the content, as well as plan their next sessions. Though deviations in the Porras and Silvers (1991) model have
been suggested (Burke, 2008; Weick & Quinn, 1999), the components of the model align with a planned process of change that may take place in schools.

PLCs as a transformative structure that promotes school change would be difficult to implement successfully in a top-down organizational school hierarchy. Supporting the process of collective inquiry, and the dialog required to seek understanding of questions surrounding new practices, requires an environment that nurtures PLCs, including a supportive administration. Distributed Leadership Theory, to be discussed next, advocates for empowering teachers as leaders, and underpins the foundation of PLCs.

**Distributed Leadership Theory**

The idea of leadership as distributed across multiple people and situations has proven to be a useful framework for understanding how schools might be improved (Timperley, 2005). For this study, distributed leadership included teachers who were empowered in PLCs, based on their expertise, to become a source of leadership in their school for the purpose of improving teaching and student learning. For example, PLC members became experts in the new teacher evaluation framework by learning it, and then teaching it, to their teacher colleagues in the schools. This process constituted a distribution of leadership that empowered PLC members to lead this change initiative.

Distributed leadership is best understood as “practice distributed over leaders, followers, and their situation and incorporates the activities of multiple groups and individuals” (Spillane et al., 2001, p. 20). The genesis of the term distributed leadership came from Australian psychologist Gibb (1954) who used it to understand the processes that influenced the work of formal and informal groups. Gibb made a distinction between focused and distributed leadership; with focused leadership, the activity was concentrated in one person, while distributed leadership
was shared with individuals taking the lead at various times (Harris, 2008). In the field of organizational dynamics, the term has been used as a synonym for a “self managed team” (Barry, 1991, as cited in Harris, 2008). This work suggests that “distributed leadership is a collection of roles and behaviors that can be split apart, shared, rotated, and used sequentially or concomitantly” (Harris, 2008, p. 174).

Harris (2008) argues that distributed leadership does not imply that formal leadership structures within the organization are removed, instead there is a powerful relationship between vertical and lateral leadership processes; and that those in the formal leadership roles are the gatekeepers to distributed leadership practice in their schools. Spillane (2006), a leading scholar in the field of distributed leadership, refers to the idea of learning as social distribution and argues that cognition is better understood as a distributed phenomenon across individuals, artifacts, and internal and external representations. Social context and the inter-relationships therein is an integral part of both the learning and leadership activity (Spillane, 2001).

Spillane et al. (2001, 2004), conducted a distributed leadership study focused on 13 elementary schools in Chicago. The central argument for the four year longitudinal research was that distributed leadership is best understood as distributed practice stretched over the schools’ social and situational contexts. The research found that the task of instructional improvement engaged multiple leaders and that understanding the interplay between different leaders is crucial to understanding leadership practice. Their conclusions were that the school (distributing leadership), rather than the individual leader, is the most appropriate unit for thinking about the development of leadership expertise.

Spillane et al. (2004), in their analysis of distributed leadership have developed a framework for investigating leadership practice that can inform change in leadership activity. For
example, leadership is not simply a function of what a school leader does; rather it is the activities engaged in by leaders, in interaction with others in particular contexts around specific tasks (Spillane et al., 2004). Their rationale is that leadership practice is a proximate cause of innovation. Blasé and Blasé’s (1999) study of teachers’ perspectives on principals’ day-to-day leadership behavior identified two major themes that made up some of the 11 strategies that effective principals use to promote instructional change which include: talking with teachers to promote reflection, and promoting professional growth. Likewise, Camburn et al. (2003), and Day and Harris (2002), argue that distributing leadership across an increased number of people in an organization has the potential to build instructional capacity within a school through development of the intellectual and professional expertise of teachers.

Investigations of human intelligence and cognition, rooted in Heidegger’s (1962) emphasis on the “in-the-worldness” of human experience, aim to situate thinking in the context in which it occurs (Lave & Wenger, 1991). From this perspective, investigating purposeful activity in its natural setting is essential for the study of human cognition and behavior (Spillane, et al., 2004); such as exploring the nature of collaborative inquiry in PLCs, as in this study. Spillane et al. (2004) argue that human activity is distributed in the interactive web of actors (socially) and by means of artifacts (materials such as memos; structures, such as timetables; and symbols, such as language) therefore situation is the appropriate unit of analysis for studying practice. They affirm that leadership practice is best understood as a practice distributed over leaders, followers, and their situation and not a function of an individual’s ability, skill, charisma, and/or cognition, see Figure 1.3.
Distributed cognition (derived from cognitive psychology) has proven fruitful in understanding human activity in complex, emergent environments, and can promote school improvement through the distribution of tasks and enhanced communication (Heck & Hallinger, 2010). Harris and Jones (2011) argue that a distributed perspective on leadership recognizes that leadership involves multiple individuals and crosses organizational boundaries. Further, that distributed leadership provides the infrastructure that holds the professional community together, as it is the collective work of educators at multiple levels that creates and sustains it (Harris & Jones, 2011).

**Distributed Leadership and Professional Learning Communities**

Distributed leadership aligns well with the purposes and goals of PLCs as an emerging way of conceptualizing leadership where power, authority and decision making are shared among a group of people (Wenger, 2004). Research by Morrisey (2000) concludes that extending leadership responsibility beyond the principal is important for developing effective professional learning communities in schools. Rosenholtz (1989), argues for teacher collegiality and
collaboration as a means of generating positive change in schools. Further, a successful school has tighter congruence between values, norms, and behaviors of principals and teachers, and that this is more likely to result in positive school performance (Rosenholtz, 1989).

Distributed leadership then ties directly to the actions that take place in PLCs. PLCs are social structures that focus on knowledge and explicitly enable the management of knowledge to be placed in the hands of practitioners (Wenger, 2004). Building a school’s capacity to learn is a collaborative rather than an individual task whereby teams learn from one another thus creating momentum to fuel improvement (DuFour & Eaker, 1998). Professional learning communities share a vision for school improvement, are willing to experiment and be tolerant of unexpected outcomes, and consider failed experiments an integral part of the learning process (DuFour & Eaker). By exploring the phenomena of individual learning and leadership experiences in PLCs, this study provided insights regarding how macro change (new evaluation systems) may be more easily implemented.

**Summary**

Learning in PLCs as a change intervention may impact enhanced individual development and possibly improved organizational performance as described in the Porras and Silvers (1991) Planned Process of Organizational Change Model. For example, in this study, using PLCs as a change intervention impacted the work setting in that teachers were focused on their own personal learning and the learning of teachers and students, in a collaborative organizing arrangement. This work setting engaged educators in the development of their professional practice as part of a community, which was driven by a common vision; the implementation of a new teacher evaluation model.
Spillane (2001) affirms that learning takes place within a social context through interrelationships, interactions, and artifacts. Darling-Hammond (2012) argues that to transform systems, incentives should be structured to promote collaboration, knowledge sharing, and ongoing evaluation and inquiry into practice within and across classrooms. The PLC model not only benefits the collective cognitive work (the what, and how, of teaching), but is also a powerful way to meet relationship needs (Servage, 2008) and build a sense of community. The Porras and Silvers Model suggests that the PLC as a change intervention might also target the vision (e.g., guiding beliefs and principles, purpose, mission) of the organization as a community. This idea refers back to Fulton’s (2010) thought, that every component of a PLC should be fulfilled: educators engaged in the development of professional practice (professional), focused on the learning of educators and students (learning), with a common vision, goals, purpose, and sense of trust, and collaborative work (community). The individual PLC members work then, may ultimately promote both cognitive change and behavior change (based on the new teaching model) which may result in improved organizational performance as well as enhanced individual development.

A final rationale behind systems change that institutes PLCs as an organizational intervention, is that by distributing leadership more widely, the opportunities for releasing interdependent learning capacity within schools and across the system is maximized (Harris & Jones, 2011). Looney (2011) writes that any system of teacher evaluation needs to be tied to a clear set of standards that includes educators working collaboratively to engage in professional learning. Understanding the individual perceptions of PLC members’ experiences regarding their learning, and their leadership of the learning of their teaching colleagues, within the context of the
implementation of a new teacher evaluation system, provided insight into the organization change process.

**Research Problem Statement**

Educational research confirms that every facet of successful school reform depends on highly skilled teachers and principals, a fact that is emerging as the most important lesson learned in more than two decades of school reform (Darling-Hammond, 2012). Ensuring teacher effectiveness is seen as both a school and district responsibility and is the current focus of educational reform across the US, as the federal Race to the Top initiative and the Elementary and Secondary Waiver required states to develop more effective evaluation systems. The goal of the current reform initiative was ambitious: change teacher evaluation systems in order to transform education. As a result, most states overhauled their evaluation systems for both teachers and administrators. For example, the New Jersey legislature unanimously passed a law in 2012, (TeachNJ) requiring implementation of teacher and principal evaluations simultaneously to ensure that New Jersey schools were taking a comprehensive approach to raising student achievement.

According to the law, new teacher evaluation systems must include greater differentiation among teacher ratings, and use student learning evidence in the evaluation process (Darling-Hammond, 2012). Current literature on teacher evaluation (Darling-Hammond, 2012; Davis, Ellett, & Annunziata, 2002; Goe et al, 2008; Looney, 2011; & Marzano et al., 2011) affirms that model teacher evaluation systems should include collaborative conversations about teaching and learning, and extensive professional development of teachers and assessors. These systems must focus on learner engagement, be tied to a clear set of standards, and allow sufficient time for implementation, to enhance the understanding of evaluation criteria, and targeted outcomes.
When used correctly, teacher evaluations should identify and measure the instructional strategies, professional behaviors, and delivery of content that affect student learning (Danielson, 1996).

Effective implementation of teacher evaluation systems requires significant systems change. Educational systems change may take place through the process of collective inquiry, and distributed leadership that occurs in PLCs. Given that effective implementation of teacher evaluation systems can be used as a source of individual learning (Morgado & Sousa, 2010); and PLCs can lead the development of new instructional strategies through collective inquiry and the delivery of professional development, there is a gap in the scholarship on how PLCs may serve as a mechanism for change within this context. By exploring the individual learning and leadership experiences of PLC members in the context of implementing a new teacher evaluation system, the researcher gained an understanding of how PLCs may be used as an instrument for educational systems change.

**Purpose Statement and Research Questions**

Using a general inductive methodology, the purpose of this study was to explore teachers’ experiences learning and leading change in a professional learning community tasked with planning and implementing a new teacher evaluation system in a small mid-Atlantic school district. The research questions informing this study were:

1. How do PLC members’ describe the purpose of a PLC tasked with implementing a new teacher evaluation system?
2. How do PLC members’ describe their experience of learning through the process of collective inquiry?
3. How do PLC members’ describe their experience as leaders in this change effort?
Significance of the Research

Implementing change in schools such as a totally new teacher evaluation system is a major initiative. Exploring the process of using promising practices, such as PLCs as an intervention mechanism, may contribute to the research on implementation, and may inform this federally mandated change initiative both locally and nationally. Empowering teachers to lead change, using a distributed leadership model, in PLCs, may be a challenge for certain school districts. Harris (2008) affirms that distributed leadership practice in the PLC structure is counter to the existing hierarchical structure of schools. For example, school districts and schools exist within a framework whereby leadership is accorded to an established hierarchy of positions and responsibilities; and school structures are currently being redefined to accommodate alternative forms of professional practice (Harris, 2008).

Many researchers, however, (e.g., DuFour & Eaker, 1998; DuFour, Eaker, & DuFour, 2005; Harris & Jones, 2011; Hord, & Hirsh 2008, 2009) argue that nurturing a culture that supports staff in becoming a PLC is a promising avenue for school improvement, a powerful staff development approach, and a strategy for school change. Tool and Louis (2002) affirm that cross-cultural findings indicate that PLCs lead to improved school functioning. Although PLCs are seen as a powerful staff development approach, challenges exist. For example, to improve practice across a school, teachers need to engage with colleagues to question, unlearn, and discard their current, rooted understandings of teaching (Spillane & Louis, 2002). This requires that teachers embrace new practices that they believe will improve student achievement. Darling Hammond and McLaughlin (1995) write that, “The vision of practice that underlies the nation’s reform agenda requires most teachers to rethink their own practice, to construct new classroom roles and expectations about student outcomes, and to teach in ways they have never taught
before” (paragraph 1). Although obvious to some, the human interactions in a PLC have proven difficult to capture (Little, 2003). Little writes, “Relatively little research examines the specific interactions by which professional community constitutes a resource for teacher learning and innovations in teaching practice” (p. 914). Capturing personal reflections by interviewing PLC members regarding their experiences in this study, contributed to the understanding of this process.

Student progress is currently dictated by the curriculum and grade progression model rather than by the readiness of students to learn (Fullan, Hill, & Crevola, 2006). PLCs are teams of teachers that participate in an ongoing process of identifying the current level of student achievement, establishing goals for improvement, and providing evidence of the progress (DuFour, DuFour, & Eaker, 2006). Hirsh and Killion (2009) argue that when educators learn, students learn. They affirm that maintaining the focus of professional learning on teaching and student learning produces academic success, and suggest that all stakeholders work collaboratively to maintain their focus on their professional learning (Hirsh & Killion, 2009). The PLC model is a powerful new way of working together that strongly affects the practices of schooling. PLCs that focus on learning and hold themselves accountable for results have been linked to student achievement (Louis & Marks, 1998; Bolam, et al., 2005).

Proponents of PLCs argue that all adults in a school have a collective responsibility to ensure that every child has the opportunity to reach their potential (Kennedy, Deuel, Nelson, & Slavit, 2011). The research of Kennedy et al. (2011) who conducted a five year study of five middle and high schools with seven teacher groups as they transitioned from voluntary to compulsory PLCs found that when adults engage in dialogue and inquiry to support student learning, a re-culturing takes place. As a result of this, teachers take risks and tolerate a level of
vulnerability in order to learn and enact productive change. For the conversations to work in the service of collaborative inquiry, team members must adopt and practice norms of collaboration; and these norms become standards when members commit to them and regularly reflect on them (Kennedy et al., 2011). The norms described here are ideals of an effective PLC. Teachers’ descriptions of their experiences learning, and leading of learning of a new teacher evaluation system, permitted a better understanding of how PLCs may be used as a mechanism for change.

**Positionality Statement**

As a qualitative researcher doing an exploratory inquiry based study, I have maintained an intimate and sustained experience with participants (Creswell, 2009). The site of my research was four school-based PLCs in the four school buildings in the district. As the director of curriculum, my job responsibilities included facilitating training on the new evaluation system, conducting meetings to reflect on feedback from the PLC participants, and doing practice instructional rounds (informal non-evaluative observations) with administrator participants. This placed me in a position of authority in the district whereby my personal bias may have impacted both my perceptions and the implementation process. This may have presented what is referred to as the observer effect (Fraenkel & Wallen, 2009). The observer effect is participant behavior being impacted by the presence of the observer (Fraenkel & Wallen, 2009). I was present as an observer sporadically in the schools as participants implemented the new system, however my perspective was completely non-evaluative and supportive and that was communicated to all participants at the informed consent meeting.

The data collection and analysis were guided by the research questions. These questions examined PLC teacher members’ perceptions of their learning and leadership experiences as part of a PLC tasked with implementing a new teacher evaluation model. Three building level
administrator’s perceptions of the PLC members’ learning and leadership experiences in their schools was also collected via interviews. In order to triangulate (cross-check) the data and to inform the phenomenon under study, data collection included reflective observations of PLC members working in their PLCs and doing the in-service trainings, and survey results collected from teaching colleagues during the first of three in-service days.

A general inductive approach to data analysis as described by Merriam (2009), and Thomas (2006), using inductive coding was employed to develop categories from the raw data into a model that included key themes and processes identified by the researcher during the coding process. The constant comparative method as described by Kolb (2012) was used to develop themes from the data by coding and analyzing at the same time. The general inductive approach is explained further in Chapter Three, Methods. It is noted that the findings were shaped by the assumptions and experiences of the researcher conducting the study and completing the data analysis (Thomas, 2006). I had a vested interest in making this a successful implementation; however, I had no preconceived notions regarding how participants perceived their experience as a learner and leader in the implementation process. The participants’ reactions were shaped by their personal and collective understanding of the evaluation system, the communication received by the building level administration, and the reactions of their teaching colleagues during the professional development sessions. The data gathered represented participants perceptions with regards to their individual learning and leadership in PLCs tasked with planning and implementing a new teacher evaluation system. It also provided their perceptions of what they thought (based on their experiences) constituted a successful PLC when used as a mechanism for systems change.
Context of the Study

To fully describe the context in which this study took place, this section presents a description of the background information regarding the school district's level of professional learning communities’ implementation prior to the initiation of the turn-key. It also includes the characteristics of the PLC members as a whole, and the degree to which they understood their purpose prior to the first Learning Sciences training. Finally, it describes the process of arriving at a leadership decision to turn-key the Marzano Model training during the 2012 to 2013 school year. The student researcher, as director of curriculum and as a doctoral student interested in PLCs, attended several workshops on Professional Learning Communities, reviewed salient research on PLCs, and read numerous books on the subject during 2010 and 2011.

Upon the release of the Interim Report, New Jersey Educator Effectiveness Task Force early in 2011, calling for the selection of a research based model focusing on measures of teacher practice and measures of student growth in learning, the student researcher selected a task force of teachers with input from building principals to be part of a district, Teacher Evaluation Review Committee. This committee was assigned the task of reviewing the state report as well as the numerous web-based broadcasts that were coming from the New Jersey Department of Education regarding the mandate for the adoption of a research based teacher evaluation system. A task force of four teachers from Elementary School #1, four teachers from Elementary School #2, three teachers from the Middle School, and four teachers from the High School (including an association representative) met twice in 2011 and once in 2012 with the purpose of researching the state mandated teacher evaluation models, presenting those models to the committee of the whole, and selecting (by a majority vote), a model for the district. These meetings were facilitated by the curriculum director who provided regular feedback on the progress of this work.
via agendas and meeting minutes with all administrators district-wide. It is noted that one member from each of the schools who served on the Teacher Evaluation Committee would later serve as a PLC member in their building and (coincidently) a participant for this study.

Seeing the value of PLCs in the research, and wanting to create more collaborative learning teams in the schools, the student researcher as curriculum director, initiated training for all administrators on launching PLCs district-wide. In March of 2011, the student researcher met with an outside professional developer to plan PLC training for the school and district administrators. Prior to that training, it was suggested by the consultant that survey data be collected from the administration in response to the question, Considering PLCs, “do we need to implement or improve PLCs in our district?” The survey data revealed several areas in need of improvement: the need for vertical and horizontal articulation of curriculum, the sharing of best practices during school meetings, dissemination and discussion of current educational research, the use of faculty meetings to show case interdisciplinary instructional practices and learning successes, having the staff involved in the planning and implementation of new initiatives, and having teams of teachers establish learning goals and then work together to meet those goals. This data gave the professional development session a greater focus for learning.

On April 12, 2011, an outside consultant conducted a full day in-service training for all administrators on PLCs. The topics included: PLCs defined, characteristics of the PLC, phases of group development, the role of collaborative teams, the possible dysfunctions of a team, PLC self-analyses, and to what degree the district was already functioning as a PLC. At the end of the session, the consultant asked the principals to establish PLC goals for their buildings. Additionally, it was agreed that the district would initiate a book review session at each of our

By the middle of the following year, after the *Teacher Evaluation Committee* had selected the Marzano Model, the student researcher began planning the process of training all teaching staff on the evaluation model. The state was offering limited funding for training through the Race to the Top Grant, thus it became necessary to establish a way to conduct the training with restricted resources. Knowing that the principals had working knowledge of PLCs from the training, the student researcher suggested the use of PLCs to the superintendent. He was in complete agreement to conduct the training as suggested. It is noted that the director of curriculum and superintendent had similar leadership styles and both shared the idea of creating PLCs in the schools, using the Marzano Model as a framework for learning and leading the initiative. The district formally announced the decision to move forward with the Marzano Model on May 3, 2012 to the school community. The director of curriculum and the superintendent delivered an in-house developed Power Point on the Marzano Causal Teacher Evaluation Model at each school faculty meeting during the month of May. The presentation focused on the components of the model and plans for the three days of *Learning Sciences* training during the 2012 to 2013 school year. It was announced at this meeting that the district would like teacher leaders to assume the responsibility of turn-keying training to teaching staff in the four schools. It was also affirmed that this would minimize the cost to the district and allow for ongoing support for all teachers during the implementation process. It was acknowledged that each teacher would receive a stipend of $540, which included three in-service days, 6 hours per day at $30 per hour. Volunteers were requested from each school with the stipulation that representation consist of varying grade levels at the elementary schools and varying subject area specializations at the
Middle School and High School. The teachers were requested to notify us of their interest to participate by September (2012) of the next school year.

The teachers that ultimately served as PLC members included multiple grade levels, varying subject area assignments, male and female teachers, and one African American teacher. The participants are described in greater detail in Chapters Three and Four. These teachers were considered teacher leaders by their principals as they had demonstrated the ability to work productively on teams at grade level meetings and department meetings. It is noted that none of the teachers received any formal training on how to learn or become leaders within a professional learning community. It is noted however, that their building principals had been trained and had established goals for moving in the direction of more collaborative school structures within their buildings. In addition, the principals were in complete support of the district’s vision to use PLCs for the staff training.

In conclusion, a short history of moving in the direction of PLCs existed in the district, but was not well entrenched by the time the 2012 school year began. Though the district administration advocated for training via the term, “turn-key,” there was no formal understanding by the PLC members of what that meant as it related to the task at hand. The term “turn-key” was referred to in the Power Point yet was never formally defined. The PLC members were virtually on their own with regards to learning the model and leading the change through their own self direction. It was clearly stated however, that open communication feedback loops would be in place with regards to all members of the District Evaluation Advisory Committee which replaced the District Evaluation Committee during the 2012-2013 school year.
Definition of Terms

For the purposes of this study, the following operational definitions are included to clarify terminology:

**Design Questions:** Questions teachers ask themselves as they are designing learning experiences for students (Marzano, 2011).

**Distributed Leadership:** Distributed leadership is: leadership that is stretched over knowledgeable individuals in the organization, and includes teachers who are empowered based on their expertise (subject knowledge, pedagogical skills, and self-knowledge of what one does well and what one needs to learn) to become a source of leadership in their schools; for the purpose of improving teaching and student learning (Bernard, 1938; Spillane, Halverson, & Diamond, 2001, 2004).

**Educator Effectiveness for New Jersey (EE4NJ) Project Requirements:** According to the State of New Jersey, the Teacher Practice Evaluation Framework must meet the following criteria: Be research-based, valid and reliable, align with the 2011 inTASC Model Core Teaching Standards, include observations as a major component, collect evidence on the learning environment, instructional practice, planning and preparation, self-reflection on teacher practice, professional responsibilities and collaboration, and include a rubric with a minimum of four levels of performance.

**Feedback:** Is information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way (Ramaprasad, 1983).

**Formative evaluation:** Is one that is intended to gather information that will be useful to improve a program, activity, or behavior (Goe et al., 2008).
Generality: Refers to how well an instrument captures the full range of contexts in which teachers work (Goe, et al., 2008).

Learning Focused: Is a curriculum and professional development program that includes four educational dimensions: Effective Teaching, High Expectations, Support all Students, and Continuous Improvement.

Learning Goals: A statement of what students will know or be able to do. Dr. Marzano (2011) suggests two formats, one for declarative knowledge or information (represented as “Students will understand…”), and one for procedural knowledge or strategies, skills, and processes (represented as: “Students will be able to…”).

Lesson Segments: Parts of a lesson, each of which has important characteristics that contain different roles for teachers and students. Each segment has multiple goals which can be attained by a variety of actions (Marzano, 2011).

Monitor: To oversee, supervise, or regulate students’ depth of understanding of new content (Marzano, 2011).

Professional Learning Community: A professional learning community (PLC) is a team of educators with a shared mission, who work collaboratively in ongoing processes of collective inquiry (questioning the status quo, seeking and testing new methods, and reflecting on the results), and who lead development work with the collective responsibility to improve teaching and student learning (DuFour & Eaker, 1998; Harris, 2003; Hord & Hirsh, 2008; Kennedy, Deuel, Nelson, & Slavit, 2011; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006).
**Professional Learning Community Members:** PLC members are the research participants in this study who represent teachers and District Evaluation Advisory Committee members from each of the school buildings at the research site.

**Reliability:** Refers to the degree to which an instrument measures something consistently (Goe, et al. 2008).

**Scale (Rubric):** Where a student is given a point in time during the learning process, as articulated by their placement on a scale for that topic or skill. This progress can be tracked by teachers and/or students and posted for viewing (Marzano, 2011).

**Summative evaluation:** Is meant to make a final determination about a program, activity, or behavior at a specific point in time (Goe, et al., 2008).

**Teaching Colleagues:** Represent teachers in the school buildings at the research site who are outside of the PLCs but whose teaching practices are impacted by the turn-key initiative.

**Validity:** Refers to the degree to which an interpretation of a test score, or in this case, a score from a measure of teacher effectiveness is supported by evidence (Goe, et al. 2008). For a measure of teacher effectiveness to be valid, evidence must support that the measure actually assesses the dimension of teacher effectiveness it claims to measure and not something else (Kane, 2006; Messick, 1989, in Goe et al., 2008).
CHAPTER 2: REVIEW OF SELECTED LITERATURE

Purpose Statement and Research Questions

Using a general inductive methodology, the purpose of this study was to explore teachers’ experiences learning and leading change in a professional learning community tasked with planning and implementing a new teacher evaluation system in a small mid-Atlantic school district. The research questions informing this study were:

1. How do PLC members’ describe the purpose of a PLC tasked with implementing a new teacher evaluation system?
2. How do PLC members’ describe their experience of learning through the process of collective inquiry?
3. How do PLC members’ describe their experience as leaders in this change effort?

Introduction

A valuable opportunity exists in adding to the empirical research on professional learning communities as a viable structure in implementing a new teacher evaluation system in school districts. Darling-Hammond and McLaughlin (2011) argue that effective professional development involves teachers as learning leaders, and requires a shift from policies that seek to control and direct the work of teachers to strategies intended to develop schools and teachers capacity to be responsible for student learning. Elmore (2008) affirms that learning is both an individual and a social activity that demands an environment that guides and directs the acquisition of new knowledge about instruction. Both researchers view professional development not as an event, but as a collective process that is counter to current norms in education.
The current institutional structure of public education creates a normative environment that values isolated and individualistic learning at the expense of collective learning (Elmore, 2008). Professional development as an isolated workshop event does not necessarily change teachers’ classroom behaviors in ways that lead to improvement in student performance (Danielson, 1996). This requires a systematic change in the way professional development is organized and delivered (Darling-Hammond, 2012), as well as how it is received by participants. A new teacher evaluation system demands that teachers have new skills and strategies (part of a new evaluation framework) to deliver instruction that is expected to improve student learning. Student growth from one year to the next, as measured by state assessments, will be tied directly to the student’s classroom teacher (TeachNJ, 2011). Darling-Hammond and McLaughlin (2011) posit that effective professional development includes the following characteristics:

1. It engages teachers in concrete tasks of teaching, assessment, observation, and reflection that illuminate the processes of learning and development;

2. It is grounded in inquiry, reflection, and experimentation that are participant driven;

3. It is collaborative, involving a sharing of knowledge among educators and a focus on teachers’ communities of practice rather than on individual teachers;

4. It is connected to and derived from teachers’ work with their students;

5. It is sustained, ongoing, intensive, and supported by modeling, coaching, and the collective solving of specific problems of practice; and

6. It is connected to other aspects of school change (p. 82).
Teachers learn by doing, reading and reflecting; by collaborating with other teachers; by looking closely at students work, and by sharing what they see (Darling-Hammond & Laughlin, 2011). The National Board for Professional Teaching Standards (2004) cites as the foundation for the assessment of accomplished teachers three key responsibilities; (a) teachers are committed to students and their learning, (b) teachers think systematically about their practice and learn from experience, and (c) teachers are members of learning communities (as cited in Danielson, 1996, p. 190). According to Danielson (1996) teacher professionalism is still an evolving field of study with much of the research theoretical and grounded in logical and ethical rather than empirical studies. This study was an opportunity to examine teachers’ perspectives regarding their learning, and leadership experiences in PLCs, a change intervention, within the context of the implementation of a new teacher evaluation model. While there has been research published on the effects of PLCs on teacher practice and student achievement (Bolam, McMahone, Stoll, & Wallace, 2005; & Hirsh and Killion, 2009; & Louis & Marks, 1998), there is a gap in the research with regards to using PLCs as a vehicle to implement teacher evaluation systems.

**Scope and Organization of this Review**

This literature review focused on seminal bodies of research in the areas of professional learning communities, teacher evaluation, educational systems change, and distributed leadership. Professional learning communities and their impact on professional development, collaborative cultures, teaching practices, and student achievement have been presented. This includes research on school change and reform, (e.g., Andrews & Lewis, 2002; Bolam et al., 2005, 2006; DuFour and Eaker (1998); Garet et al.; 2001, Hollins et al., 2004; Hord and Hirsh (2008, 2009); Little, 1982; Louis & Marks, 1998; Nelson, 2008; Nelson & Slavit, 2008; Phillips, 2003; & Strahan, 2003). Teacher evaluation as a construct and process incorporate definitions of teacher

The work of Senge (1990), Wenger (1998), Porras and Silvers (1991), and Fullan (2008) were explored as it relates to educational systems change. The theory of distributed leadership was presented with the supporting research of DeFlaminis (2011) and Spillane, et al., (2004, 2006, & 2010). The research, and historical and contemporary context, as it relates to the four primary constructs in this study: PLCs, teacher evaluation, systems change, and distributed leadership have been presented in this literature review.

Professional Learning Communities

Educators generally agree that the purpose of schools is student learning, and that teacher quality has a direct correlation with student performance (S.M. Hord, 2009). In the last two decades, research has defined a new paradigm for professional development (Stein, Smith & Silver, 1999). This model changes the traditional “one-shot” workshop and replaces it with a
professional learning community design that places teachers at the center of learning. Hord and Hirsh (2008) argue that the context most supportive of the learning of educational professionals is the professional learning community. Stoll (2006) affirms that the concept of PLC is connected with notions of inquiry, reflection, and self-evaluating schools; and that certain key features of PLCs were evident in the work of Dewey (1929) who argued that educational practices provide the data and the subject matter which forms the problems of inquiry. Seashore, Anderson, and Riedel (2003, p. 3) elaborate on the term PLC:

By using the term professional learning community we signify our interest not only in discrete acts of teacher sharing, but in the establishment of a school-wide culture that makes collaboration expected, inclusive, genuine, ongoing, and focused on critically examining practice to improve student outcomes….The hypothesis is that what teachers do outside of the classroom can be as important as what they do inside in affecting school restructuring, teacher’s professional development, and student learning.

The term PLC may be used to describe grade level teams, a school committee, a high school department, an entire school district, or a state department of education (DuFour, 2004). A professional learning community is educators committed to working collaboratively in ongoing processes of collective inquiry and action research in order to achieve better results for the students they serve (Hord & Hirsh, 2008). PLCs share and question their practice, in reflective, collaborative, inclusive, learning-oriented, and growth promoting ways (Mitchell & Sackney, 2000; Toole & Louis, 2002). Public school reform that embraces the idea of improving schools by developing PLCs is currently an accepted model for school change (Stoll, et al, 2006). Professional learning communities are referred to within the school effectiveness and school
improvement literature (e.g., Rosenholtz, 1989; Stoll et al., 2006; Little, 1990) as demonstrating a positive contribution to system-wide improvement (Harris and Jones, 2010).

The concept of a professional learning community is best understood within the investigative framework of Dufour and Eaker (1998), Hord and Hirsch (2008, 2009), and Stoll, et al. (2006). Their research has captured the imagination of educators with its promise of fundamentally altering teaching, learning, and the bureaucracy of individualism that pervade so many schools. Several studies suggest that teachers’ collaboration in PLCs promotes professional growth, creates a culture of sharing, improves practice, and contributes to student learning (e.g., Andrews & Lewis, 2002, Bolam et al., 2005, Garet et al., 2001, Hollins et al., 2004; Little, 1982, Louis & Marks, 1998; Nelson, 2008; Nelson & Slavit, 2008, Phillips, 2003; & Strahan, 2003). Research that supports these findings is presented in the following section.

**PLCs and Professional Development**

Darling-Hammond and McLaughlin (1995) argue that the content of professional development needs to emphasize active teaching, assessment, observation, and reflections rather than abstract discussions. This section will focus on professional development in PLCs as a means to focus on student learning and the pedagogical skills needed to promote active student learning.

Darling-Hammond and McLaughlin (2011) affirm that a paradigm shift to PLCs requires policy supports for professional development that takes place within the school boundaries. It involves teachers as both learners and as teachers giving them the opportunity to struggle with the uncertainties that accompany each role. Because of the norms of isolation that pervade educational institutions, teachers individually cannot re-conceive their practice and the culture of their workplace (Darling-Hammond & McLaughlin). The re-thinking of old norms requires a
supportive school community that places value on allowing teachers to reflect on shared problems and broader organizational goals. The researchers argue that this collaborative culture of learning and problem solving needs to be created to challenge existing norms and includes modeling and reinforcing collegiality as a professional asset. The PLC member turn-key trainers in this study, modeled this collegial practice, offered relevant research based instruction, and provided coaching support during the learning and implementation process.

Phillips (2003), in his qualitative case study of a Texas urban middle school, examined how high quality professional development can improve student academic achievement. Part of a larger research study and a five year reform effort (18 projects), this study focused on a magnet school with 1,425 students enrolled in 6-8, with one third of the students being regular (non-magnet) students. The research question addressed the impact of high quality professional development on “regular” (non-magnet) students’ academic achievement? The results found four themes focused on school improvement: high-quality professional development, research-based literature, shared leadership, and collaborative processes. Putting learning at the center of its reform, this school engaged teachers in the decision-making process regarding professional development which increasingly became more individualized, reflective, and innovative. The implications of this study for the proposed research suggest that teacher decision-making can lead to more relevant and meaningful professional development.

E. Hollins, McIntyre, DeBose, K. Hollins, and Towner (2004), using a mixed methods approach, investigated an internal model for teacher development by promoting self-sustaining learning communities. The research question explored the potential for using a structured dialog problem-solving approach where teachers rely on collaboration and within-group directed inquiry for improving literacy acquisition among African American children in a K-5 urban elementary
school. Their study framework included teacher collaboration, self-reflection, and cross classroom visitation. Test data indicated that the internal model for professional development had the potential for influencing teaching practices that improve learning for this population of students. The internal professional development model investigated in this study informs this research proposal, which focused on teacher PLC members engaging in collective inquiry regarding the Marzano (2011) Causal Teacher Evaluation Model content, and organizing professional development to assist in the implementation of the teacher evaluation system.

Garet, Porter, Desimone, Birman, and Yoon (2001), examined what makes professional development effective in a nationally representative sample of math and science educators from 358 school districts. Using a mixed methods approach the results indicated that core features of professional development that have significant, positive effects on teachers’ self-reported increases in knowledge and skills, and also change classroom practice include: a focus on content knowledge, opportunities for active learning, collective participation of teachers from the same school, grade, or subject, and the duration of the training. This study informs the current proposal which included school level PLCs, and sustained and intensive PD on the teacher evaluation system.

**PLCs and Collaborative Cultures**

Stoll et al. (2006) argue that any attempt to improve schools that neglects school culture is hopeless, because school culture influences readiness for change. Schein (1985) writes that “there is a possibility….that the only thing of real importance that leaders do is to create and manage culture and that the unique talent of leaders is their ability to work with culture” (p.2). Schein further argues that a culture enhancing learning balances all stakeholders’ interests; focuses on people rather than systems; makes people believe they can impact their environment; makes time
for learning; encourages open communication; believes in team work; and has approachable leaders. Ensuring learning and collaboration at all levels requires culture building that focuses on promoting professional learning in PLCs as fundamental to the change process (Stoll et al.).

Several studies have examined PLCs that promote a culture of sharing, as well as a culture of inquiry-based learning. Nelson (2008) examined an inquiry stance toward collaborative work as being essential to transformative individual change and re-culturing using a qualitative methodology. Nine PLCs in Washington State were purposefully selected to represent secondary math, science, and a combination of the two. The unit of analysis consisted of teachers’ collective actions as displayed in their PLC dialog. The themes were narrowed to four areas of research interest; the development of the group as a learning community; their collective activities related to the inquiry cycle, the impacts of their PLC work on student learning, classroom practice, and teachers’ beliefs; and the influence of the PLC experience on teachers’ professional responses to forces beyond the PLC. Each of the PLCs revealed differences with regards to their orientation as learners or experts, their dialogic stance as questioning or sharing, their collective actions, and their development of a common vision associated with their inquiry focus. The Grays Bay teachers were most successful in shifting from traditional interaction to sharing, inquiry, and examining student work. The Douglas PLC demonstrated how difficult it is to overcome professional norms and their work was characterized by expert consultation (top-down) rather than inquiry and reflection. The results indicate that while sustained dialog is essential in PLC work, it needs to be characterized by an inquiry stance with a purpose that contributes to teacher learning and impacts classroom practice and student learning.

Another study by Nelson and Slavit (2008), with regards to PLCs and an inquiry based culture included the development of self-sustaining PLCs amongst middle and high school math
and science teachers as part of a three year professional development project funded by the United States Department of Education. The support for collaborative inquiry and an inquiry environment were analyzed using qualitative data such as interviews and observations. The PLC provided a structure for teachers coming together with questions to develop a common understanding about learning, students, curriculum, subject matter, and teaching practices. Teachers’ collective inquiry focused their attention on understanding the gaps between a shared vision for student learning and actual student achievement. The results indicated that teachers’ ability to influence change in the classroom and the broader educational context is empowering. It requires support from building and district level administration, as well as content area specialists in math and science education.

Little (1982), in her study on norms of collegiality and experimentation as workplace conditions of school success found that the notion of ‘school as workplace’ for professional development is powerful for teachers. Results of her ethnographic study indicated that staff development in the ‘school as a learning environment for staff’ contributed to school success. Further, that staff development has the greatest effects where there is a prevailing norm of analysis, evaluation, and experimentation. Little’s notion of a ‘shared technical culture” implies that teacher interaction must be relevant, meaningful, and also required to satisfy formal and informal teaching responsibilities.

Webb, Vulliamy, Sarja, Hamalainen, & Poikonen (2009) examined PLCs and teachers’ morale and well being in primary schools in England and Finland. The English data were derived from the Fifty Schools Revisited (FSR) Project. This project examined the impact on primary schools of the 1988 Education Reform Act (ERA). The field work for the FSR project was conducted in two phases (2003-2005 and 2006-2007). The first focused on classroom practice,
and the second on teachers’ work and well-being. The Finnish sample included six schools in four different municipalities. In contrast to England, Finland has a high proportion of small village schools with fewer than 50 pupils. While it is generally claimed that the primary purpose of PLCs is to enhance student learning, this project demonstrated that promoting the well-being and learning of teachers is equally important. In both the English and Finish project schools as collaborative cultures with supportive trusted colleagues was highly valued by teachers. Being able to share concerns and problems was vital to teacher morale and effectiveness.

**PLCs and Teaching Practice**

The implementation of a new teacher evaluation system requires teachers and administrators to understand and adopt new visions for teaching practice. Both the Hollins et al. (2004) and Garet (2001) studies link PLCs to teaching practice; however there are other studies that can be cited regarding this relationship. Louis and Marks (1998) examined the extent to which professional community influences the social and technical organization of the classroom, and how this affects student achievement in 24 nationally selected restructuring elementary, middle, and high schools. Using a mixed methods approach, data were collected between 1991 and 1994 as part of the School Restructuring Study of the Center on Organization and Restructuring of Schools at the University of Wisconsin. It included questionnaires, surveys, student work, and observations. Where schools achieved professional community, the quality of classroom pedagogy was higher (.36), and student achievement level significantly higher (.26). Additionally, classroom social support for authentic achievement lifted school authentic achievement levels (.19). The results suggest that professional community improves both classroom practices and student achievement.
Padwad and Dixit (2008) examined the impact of professional learning community participation on teachers’ thinking about classroom practices. Using a qualitative methodology, participants’ views and attitudes towards classroom problems were captured through a structured narrative. The results indicated that teachers belonging to a PLC (English Teachers’ Club) gave teachers a professional growth opportunity not available to others outside the community. The outcome of the study indicated that teachers think about classroom problems in a productive way, and feel capable of addressing problems and working out solutions. The PLC members reflect, seem more open-minded, tolerant, and approach problems with a belief in self-agency (Padwad & Dixit).

A final study linking PLCs to improved teacher practice was conducted by Bolam, McMahon, Stoll, Thomas, & Wallace (2005). The researchers employed a mixed methods study sampling over 2000 schools in England to examine what constitutes an effective PLC. Using a survey, interviews, documents, and observations to collect data, interviewees reported that learning opportunities and participation in PLCs positively impacted their practice. Pupil learning was the foremost concern of the PLC, and the more developed a PLC appeared to be, the more positive was the association with pupil achievement and professional learning. The researchers suggest that PLCs are created, managed, and sustained through four key operational processes: optimizing resources and structures, promoting individual and collective learning, explicit promotion of an effective PLC, and supportive leadership and management. In addition to teachers’ perception of practice improvement, this research contributes to the notion that PLC membership be inclusive of both teachers and school leaders.
These studies affirm that PLC members can be empowered to impact their teaching environment with inquiry based collaborations, enhanced classroom practice, and improved student learning.

**PLCs and Student Achievement**

Though a paucity of empirical studies exist with regards to PLCs and student achievement, research indicates that teacher teams who focus their collaborations on improving instruction and student achievement rather than more general conversations regarding curriculum, and have administrative support, may have a positive impact student achievement (Vescio, Ross & Adams, 2008; Saunders, Goldenberg, and Galimore, 2009). For example, Strahan’s (2003) case studies of an elementary school reported that PLCs guided by a facilitator led to the development of stronger instructional norms and changed practices for guided reading, writing, and self-selected reading which supported literacy growth. Though each school accomplished reform in a slightly different way, it was fueled by stronger PLCs with data-directed dialog, higher levels of student engagement, and targeted instruction. From 1997 to 2002, student scores on state achievement tests rose from less than 50% proficient to more than 75% proficient in all three schools.

Louis and Marks (1998) using mixed methods instrumentation examined 24 nationally selected restructuring elementary, middle, and high schools and found that where schools achieve professional community (shared decision making and time to meet and plan), the student achievement level is significantly higher (.26) than those who do not. Saunders, Goldenberg, and Galimore (2009), using a 5 year quasi-experimental investigation comparing achievement gains in nine Title 1 (K-5) Elementary Schools relative to six matched schools, found increased average achievement over time in schools that implemented teacher teams focusing on improving student
Learning. The nine experimental schools organized and trained grade-level teams to increase tested achievement by focusing on student learning. The results indicated that significant achievement gains took place when grade-level teams were provided with consistent meeting times, school wide instructional leadership, and explicit protocols that focused meeting time on students’ academic needs and how to address them in the classroom.

These studies demonstrate the impact of PLCs on student achievement. Both Marzano (2011) and Danielson (1996) use student achievement as the ultimate measure of a high quality teacher evaluation system, yet little research is available linking teacher evaluation systems or PLCs to student achievement. The goal of planned organizational change in the Porras & Silvers, (1991) Model is to improve individual development (of teachers) as well as organizational performance (as measured by the TeachNJ rating scale – highly effective, effective, partially effective, and ineffective). Though critical to the evaluation of teacher performance, the impact of PLCs on student achievement is beyond the scope of this research. That would require a larger window of time for the data collection process and perhaps a change to a mixed methods design approach. The purpose of this study is to explore teachers’ experiences, as members of a PLC, tasked with the planning and implementation of a new teacher evaluation system in a small mid-Atlantic school district, and currently there is no peer-reviewed research that supports this chosen focus.

**Summary**

This section explored the research on PLCs and their impact on professional development (Darling-Hammond & McLaughlin, 1995, 2011; Garet et al., 2001; Hollins et al., 2004; Phillips, 2003; improved classroom practices (Bolam et al., 2005; Garet et al., 2001; Hollins et al., 2004; Louis & Marks, 1998; Padwad & Dixit, 2008; building collaborative inquiry based cultures
(Little, 1982; Nelson, 2008; Nelson & Slavit, 2008; Schein, 1985; Stoll et al., 2006) and enhancing student achievement (Bolam et al., 2005; Saunders et al., 2009; Strahan, 2003; Supovitz, 2002; Vescio et al., 2008). Following is a review of the literature on teacher evaluation systems, which was the context of the study.

**Teacher Evaluation Systems**

**A Brief History**

Teacher evaluation has a long history dating back to the early 1700’s when local governments or clergy were responsible for hiring and evaluating teachers (Marzano, Frontier, & Livingston, 2011). With little agreement as to the importance or nature of pedagogical expertise, the quality and type of feedback provided to teachers was inconsistent (Marzano et al.). By mid-1800 this changed with larger urban areas on the rise and more complex school systems, a demand grew for teachers who held expertise in specific disciplines and a supervisor or principal with subject area knowledge and teaching skills (Marzano et al.). Although there was little or no formal discussion about the specifics of these skills, the acknowledgment of their importance might be considered the first step in a comprehensive approach to developing teacher expertise (Marzano, et al.).

In the latter part of the 19th century, two competing views of education emerged. One embodied the writings of John Dewey who saw democracy as the conceptual foundation for human progress. He argued that schools should be organized such that students can practice citizenship and develop ideals of democracy (Dewey, 1938, 1981, as cited in Marzano, et al., 2011). Progressive ideals such as student-centered education, real world connections, differentiation based on needs and integration of content areas were espoused by Dewey as ways
for students’ to transition from their passive role as learners to the active role they would play as citizens (Marzano, et al., 2011).

The second outlook on education was embodied in the work of Frederick Taylor and his scientific view of management. Taylor believed that measurement of specific behaviors of factory workers was the most powerful way to improve production (Marzano, et al., 2011). Task performance and measurement began to impact K-12 education when Edward Thorndike, building on the work of Taylor, argued that educators should view measurement as a tool for a more scientific approach to schooling. Thorndike’s theories were applied to administration by Ellwood Cubberley who originally published the book *Public School Administration* (1929) describing how Taylor’s principles could be used to manage schools similar to factories. In this book, Cubberley provided specific examples of feedback that a supervisor might provide a teacher. Though tensions existed up through the 1930’s between the two views of education, both were not incompatible (Marzano, et al., 2011). Cubberley’s recommendation advocated the use of data for feedback to teachers; Dewey’s focus was on an education system that fosters democratic ideals. Both perspectives sought educational improvement through different lenses that would not be integrated until the era of clinical supervision in the 1950’s (Marzano, et al.)

Marzano et al., (2011) argue that the era lasting from the late 1960’s to the early 1970’s witnessed the phenomenon of clinical supervision, one of the most influential movements in supervision and evaluation. Madeline Hunter (1984) proposed a seven-step model of a lesson, and championed the idea of using professional development to articulate a common language of instruction. Hunter’s (1984) model of lesson design included seven elements: anticipatory set, objective and purpose, input, modeling, checking for understanding, guided practice, and independent practice, and became the prescription for teacher evaluation in many states.
This period was followed by developmental/reflective models that were much less prescriptive than the Hunter model and advocated a narrative - descriptive approach to evaluation (Marzano et al.). This approach to evaluation would be challenged by research completed in 1984. The RAND group engaged in a study to determine what types of supervisory and evaluation practices were actually occurring in school districts across the nation. Its report, titled *Teacher Evaluation: A Study of Effective Practices* (Wise, Darling-Hammond, McLaughlin, & Berstein, 1984) found that many of the systems of supervision and evaluation were didactic and formulaic in nature. One general finding was that the developmental and reflective approaches were viewed as not specific enough to enhance pedagogical development. In their report, teachers were advocates for more standardized, specific feedback on their practice. “In their view, narrative evaluation provided insufficient information about the standards and criteria against which teachers were evaluated and resulted in inconsistent ratings among schools” (Wise et al., 1984, p. 16).

In 1996, Charlotte Danielson published *Enhancing Professional Practice: A Framework for Teaching* which was later updated in 2007. Whereas Hunter described the steps in the teaching process, Danielson sought to capture the dynamic process of classroom teaching. Danielson’s model included four domains: Planning and Preparation, the Classroom Environment, Instruction, and Professional Responsibilities. Within each of these domains is a series of components (or elements) that further articulate the knowledge, skills, and dispositions required to demonstrate instructional competence in the classroom. According to Danielson (1996), the intent of the framework was to honor the complexity of teaching, develop a common language for professional conversation, and provide a structure for self-assessment and reflection on teaching practice. Marzano et al. (2011) affirm that the level of specificity supplied in the
Danielson Model provided the foundation for the most comprehensive approach to evaluation in the 20th century.

By the beginning of the 21st century, Tucker and Strong (2005) in their book Linking Teacher Evaluation and Student Learning, championed the importance of student achievement as a criterion in the evaluation of teachers. They argued for evaluation systems that determine teacher effectiveness using evidence from student gains in learning, as well as observations of teaching practice in the classroom. Their claim was based on the study of both components in four school districts that used data on instructional practices and learning gains. Their recommendations regarding the use of student achievement data were forcefully stated:

Given the clear and undeniable link that exists between teacher effectiveness and student learning, we support the use of student achievement information in teacher assessment. Student achievement can, and indeed should be, an important source of feedback on the effectiveness of schools, administrators, and teachers (p. 102).

This research would lay the groundwork for measures of teacher practice now in statute that includes both classroom observation data and student achievement data.

In 2008, Toch and Rothman published Rush to Judgment, a confrontational perspective on teacher evaluation in the United States. They critiqued current evaluative practices saying they are “superficial, capricious, and don’t even directly address the quality of instruction, much less measure students’ learning” (p. 1). Furthermore, despite No Child Left Behind requirements regarding teacher quality, they found only 14 states that required school systems to do annual evaluations on teaching staff. In their report, Michigan State professor Mary Kennedy is quoted
as saying (with regards to evaluating teachers) “in most instances, it’s nothing more than marking satisfactory or unsatisfactory” (p. 2).

A similar study in 2009 entitled *The Widget Effect* (Weisberg, Sexton, Mulhern, & Keeling) heavily criticized teacher evaluation practices, see Table 1.1. Discussed previously in the Problem of Practice section of this study, the Widget Effect describes the tendency of school districts to assume classroom effectiveness is the same from teacher to teacher, failing to differentiate performance among teachers. The result is that teacher effectiveness is ignored. “Excellent teachers cannot be recognized or rewarded, chronically low-performing teachers languish, and the wide majority of teachers performing at moderate levels do not get the differentiated support and development they need to improve as professionals” (Weisberg et al., p. 6). As a result of these comprehensive reports, by the end of the first decade of the 21st century, teacher evaluation practices were clearly under the radar by federal and state education policy makers with systematic reform soon to be initiated in the form of mandated teacher evaluation systems.

**Summary**

This section has examined the historical context with regards to the evolution of teacher evaluation practices, from non-existent, to scientific, to clinical, and to reflective and narrative. Honoring the complexity of teaching, Danielson (1996) called for a comprehensive system that incorporates both teaching practice and student achievement. Tucker and Strong (2005) in their research support the use of student achievement in teacher evaluation. Toch and Rothman (2008) emphasized the superficial nature of the evaluation process, and Weisberg et al. (2009) describe that the wide majority of teachers performing at moderate levels do not get the differentiated
support and development they need to improve as professionals. The system therefore fails to address the quality of instruction that serves student learning (Weisberg et al.). See Table 1.1 for an illustration of Problems with Current Evaluation Systems.

<table>
<thead>
<tr>
<th>Table 1.1. Problems with Current Evaluation Systems</th>
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<tr>
<td>As shown in the 2009 report, The Widget Effect: Our National Failure to Acknowledge and Act on Differences in Teacher Effectiveness, most teacher evaluation systems suffer from a slew of design flaws.</td>
</tr>
<tr>
<td><strong>Infrequent:</strong> Many teachers – especially more experienced teachers – aren’t evaluated every year. These teachers might go years between receiving any meaningful feedback on their performance.</td>
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<tr>
<td><strong>Unfocused:</strong> A teacher’s most important responsibility is to help students learn, yet student academic progress rarely factors directly into evaluations. Instead, teachers are often evaluated based on superficial judgments about behaviors and practices that may not have any impact on student learning – like the presentation of their bulletin boards.</td>
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<td><strong>Undifferentiated:</strong> In many school districts, teachers can earn only two possible ratings: “satisfactory” or “unsatisfactory.” This pass/fail system makes it impossible to distinguish great teaching from good, good from fair, and fair from poor. To make matters worse, nearly all teachers – 99 percent in many districts – earn the “satisfactory” rating. Even in districts where evaluations include more than two possible ratings, most teachers earn top marks.</td>
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<td><strong>Unhelpful:</strong> In many of the districts we studied, teachers overwhelmingly reported that evaluations don’t give them useful feedback on their performance in the classroom.</td>
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<td><strong>Inconsequential:</strong> The results of evaluations are rarely used to make important decisions about development, compensation, tenure or promotion. In fact, most of the school districts we studied considered teachers’ performance only when it came time to dismiss them.</td>
</tr>
<tr>
<td>Taken together, these shortcomings reflect and reinforce a pervasive but deeply flawed belief that all teachers are essentially the same – interchangeable parts rather than individual professionals (p. 01).</td>
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**A New Era in Teacher Evaluation Research and Practice**

Simon (2012) in his comparison study of Montgomery County Public Schools and the District of Columbia Public Schools suggests the following guidelines for effective teacher evaluation. These guidelines may also be viewed as the norms and values that support the process of learning, or professional development in the PLC.

1. **Collaboration.** The cornerstone of effective teacher evaluation is a collaborative environment in which the teachers union and the district co-design, complement, and co-
evaluates the evaluation system. If the evaluation process does not have credibility, if
teachers don’t value what they learn from it, or if they perceive it as unfair, it will fail.

2. Professional culture. Strong teacher voice helps establish a culture focused on good
teaching. Teacher leadership and a professional, knowledge-based culture are preferable
to a hierarchical system.

3. Deep knowledge base in teaching. Deep training of all evaluators and teachers
communicates respect for the complexity of the craft, establishes a common language
around good teaching, and creates credibility for decisions that affect individual teachers’
careers. If the credibility of the system is not earned, it will foster cynicism.

4. Integration with professional development and school culture. Evaluation is most
effective when it is integrated with other processes that support professional growth. The
goal should not simply be to rank and rate teachers, but to create a healthy professional
culture.

5. Responsiveness to differentiate needs. The evaluation process should be differentiated on
the basis of what each teacher needs. One-size-fits-all processes waste time and add
unnecessary expense.

6. Reliance on intrinsic rewards. In a professional culture, evaluation doesn’t have to result
in wasteful extrinsic rewards. The process can be its own reward.

These guidelines suggest that teacher evaluation system implementation can be enhanced
when it is integrated with a new vision for professional development. The new teacher evaluation
system informs a process of PD, using PLCs to learn and lead the learning of their teaching
colleagues. Simon’s (2012) norms and values speak to a collaborative culture that shares learning
and leadership thus improving school level professional development.
The National Comprehensive Center for Teacher Quality- A Research Synthesis

Goe, Bell, and Little (2008) published *Approaches to Evaluating Teacher Effectiveness: a Research Synthesis* sponsored by the National Comprehensive Center for Teacher Quality, a government cooperative including the Education Commission of the States, ETS, Learning Point Associates, and Vanderbilt University. The goal of the research synthesis was to help regional and state decision makers better understand what constitutes effective teaching and the advantages and disadvantages of the various measures commonly used to measure it. The research study was commissioned by the National Comprehensive Center for Teacher Quality (TQ Center) which is charged with assisting regional comprehensive centers and the state in which they work with implementing the highly qualified teacher requirements of the NCLB Act, with particular emphasis on ensuring that students at risk for poor educational outcomes and students with special needs are served by highly qualified, effective teachers.

The studies discussed in the research of Goe, Bell, and Little (2008) focus explicitly on a definition of teacher effectiveness that includes gains in student achievement as well as measures of classroom processes. The researchers define processes as the interaction that occurs in a classroom between teachers and students and particular practices and approaches to teaching. Using student achievement on test scores as a measure of teacher effectiveness however, has been challenged by researchers. For example, Kyriakides, Muijs, and Robinson (2004) state, “Teacher effectiveness is the impact that classroom factors, such as teaching methods, teacher expectations, classroom organization, and use of classroom resources have on students’ performance” (p. 3). Goe et al. argue that in measuring student achievement other influences on student outcomes should be considered including other teachers, peers, school resources, community support, leadership, and school climate. Brophy and Good (1986) suggest a definition of teacher
effectiveness which includes success in socializing students and promoting their affective and personal development, in addition to success in fostering their mastery of formal curricula. This research affirms the complexity of both classroom instruction and the evaluation processes.

Given the complexity of teachers’ roles, Goe et al. (2008) developed a five point definition of teacher effectiveness formulated by evaluating discussions of teacher effectiveness in the research literature as well as in policy documents, standards and reports. In addition, after these five points were conceptualized, they were circulated among a number of experts on teacher quality and effectiveness for feedback. The definition consists of the following:

1. Effective teachers have high expectations for all students and help students learn, as measured by value-added or other test-based growth measures, or by alternative measures.

2. Effective teachers contribute to positive academic, attitudinal, and social outcomes for students such as: regular attendance, on-time promotion to the next grade, on-time graduation, self-efficacy, and cooperative behavior.

3. Effective teachers use diverse resources to plan and structure engaging learning opportunities; monitor student progress formatively, adapt instruction as needed; and evaluate learning using multiple sources of evidence.

4. Effective teachers contribute to the development of classrooms and schools that value diversity and civic-mindedness.

5. Effective teachers collaborate with other teachers, administrators, parents, and education professionals to ensure student success, particularly the success of students with special needs and those at high risk for failure (p. 8).
The researchers suggest that this definition is intended to focus measurement on multiple components of teacher effectiveness. The first point directly addresses student achievement gains on standardized tests and the other points focus on teachers’ indirect contributions that may ultimately improve student learning. The final point and the focus of the present study, explores the process of teacher collaboration. It is noted by the authors that the fifth point in the definition is seldom measured or even considered as a component of teacher effectiveness.

Goe et al. (2008) provided an extensive review of the instruments used to measure teacher effectiveness. These include classroom observations; principal evaluations; analysis of classroom artifacts; teaching portfolios; teacher self-reports of practice including: surveys, teaching logs, and interviews, student ratings of teacher performance, and value added strategies (teachers’ contribution to students’ standardized test scores). Their ideas inform the proposed study in the area of classroom strategies and observations. The researchers argue that “when measuring teacher effectiveness through classroom observations, valid and appropriate instruments are crucial as well as trained raters to utilize those instruments in standard ways so that results will be comparable across classrooms” (p. 20). They write that classroom observation can be used to measure observable classroom processes, including specific teacher practices, holistic aspects of instruction, interactions between teachers and students; and can measure broad, overarching aspects of teaching or subject-specific or context-specific aspects of practice. Their research affirms that some highly researched protocols have been found to link to student achievement, though modestly; that research and validity findings are highly dependent on the instrument used, sampling procedures, and training of raters; and that there is a lack of research on observation protocols used in context for teacher evaluation.
Goe et al. (2008) cite cautions regarding the use of observation protocols. For example, when observation protocols clash with stakeholders’ beliefs regarding what good teaching looks like, or are implemented in biased ways, the validity of the results is weakened. They also state that many protocols have been used in research projects only by the researchers themselves and lack field testing. Finally, to ensure rater reliability, raters must agree on what good teaching looks like consistently across grades and content areas.

Summary

This section has reviewed the research synthesis conducted by Goe et al. (2008) and funded by the National Comprehensive Center for Teacher Quality focusing specifically on their definition of teacher effectiveness and how to measure it. The researchers developed a five-point definition intended to focus measurement of teacher effectiveness on multiple components including specific teacher practices, holistic aspects of instruction, and interactions between teachers and students. Goe et al. affirm that there is a lack of research on observation protocols used in the context of teacher evaluation.

As discussed in the introduction of this chapter, policies are emerging that foster new structures and institutional arrangements for teachers’ learning and evaluation. The National Education Association representing over 3 million educators issued a policy statement on teacher evaluation and accountability. Following is their suggested framework for this mandated change.

The National Education Association’s Response to the Mandate

A new teacher evaluation system is now part of federal and state statute. Hazi and Rucinski (2009) affirm that teacher evaluation has become a policy target in the states, and the development and implementation of educator evaluation systems is a critical area for mandated
change in school districts (Hershberg & Robertson-Kraft, 2010). RTTT emphasizes the importance of improving teacher quality through research-based evaluation models as a means for accelerating student progress and closing the achievement gap (Hershberg & Robertson-Kraft), and is endorsed by the National Governors Association in statute and policy as a tool for instructional improvement (Hazi & Rucinski, 2009).

In response to the Waiver Request for a research-based teacher evaluation system, the National Education Association (NEA issued a policy statement on teacher evaluation and accountability in August of 2012 (www.nea.org). Their statement called for a comprehensive overhaul of teacher evaluation and accountability systems with NEA members taking the responsibility for ensuring the development, implementation, and enforcement of these systems (nea.org, July 4, 2011). Components of the policy statement include:

1. High Quality Teacher Evaluation Systems that provide ongoing, non-evaluative, formative feedback and regular, comprehensive, and fair evaluations. Such systems must be developed and implemented with teachers and their representatives, either through collective bargaining, or in partnership with the affiliate representing teachers at the state and local level. The evaluations must be based on multiple indicators to provide teachers with clear actionable feedback to enhance their practice and must include all three of the following components:

a. *Indicators of Teacher Practice* demonstrating a teacher’s subject matter knowledge; skill in planning and delivering instruction that engages students; ability to address issues of equity and diversity; and ability to monitor and assess student learning and adjust instruction accordingly. Such indicators may include classroom observations, proof of practice (e.g., lesson plans, student
assessments, minutes from team planning meetings, and teacher instructional notes), teacher interviews and self-assessments.

b. *Indicators of Teacher Contribution and Growth* demonstrating a teacher’s professional growth and contribution to a school’s and/or district’s success. Such indicators may include completion of meaningful professional development that is applied to practice; structured collaboration with colleagues focused on improving practice and student outcomes (e.g. by way of professional learning communities and grade or subject teams); evidence of reflective practice; teacher leadership in the school, district or educational community; collaborative projects with institutions of higher education; and positive engagement with students, parents, and colleagues.

c. *Indicators of Contribution to Student Learning and Growth* demonstrating a teacher’s impact on student learning and growth. Such indicators must be authentic, reflect that there are multiple factors that impact a student’s learning beyond a teacher’s control may include student learning objectives; teacher-created assessments; district or school assessments, student work, teacher defined objectives for individual student growth; and high quality developmentally appropriate, standardized tests that provide valid, reliable, timely, and meaningful information regarding student learning and growth.

2. The evaluations must be meaningful, providing all teachers with clear feedback linked to tailored professional development. Evaluations must be fair and conducted by highly trained and objective supervisors. If an evaluation will be the basis for any action relating to a teacher’s employment, ratings by more than one evaluator must be
provided in support of the action. To satisfy these requirements, evaluation systems
must be adequately funded and staffed, and fully developed and validated, by training
all teachers on the new system before they are used to make any high stakes
employment decisions (pp. 1-4).

Components of the NEA issued policy statement on teacher evaluation and accountability
have been included here. Evaluations must be based on three indicators that provide teachers
with clear feedback in order to enhance classroom practice; specifically, the three indicators
include: teacher practice, teacher professional growth, and contributions to student learning.
These three indicators make up the mandated teacher evolution systems being implemented
nationally. Research on the implementation process as perceived by the teacher PLC members
will inform changes in teacher practice, teacher professional growth, and student learning.

This chapter now discusses the Marzano Causal Teacher Evaluation System and the
components of this system which will be used as the context for this proposed study.

The Marzano Causal Teacher Evaluation System

the Art and Science of Teaching, is a culmination of previous works including What Works in
Schools (Marzano, 2003b); Classroom Instruction That Works (Marzano, Pickering, & Pollock,
2001); and Classroom Management That Works (Marzano, 2003a). This model presents a
framework for understanding the characteristics of effective schools and effective teachers and
includes four Domains; Domain 1: Classroom Strategies and Behaviors; Domain 2: Planning
and Preparing; Domain 3: Reflecting on Teaching; and Domain 4: Collegiality and
Professionalism. According to Marzano (2007), the components of effective classroom
pedagogy can be articulated under three general types of lesson segments that are incorporated in Domain 1 and include: routine segments, content segments, and segments that are enacted on the spot, see Table 1.2. Within this framework are nine instructional design questions and 41 elements. Each of the lesson segments contains different roles for teachers and students, with multiple goals, which can be successfully met by a variety of actions.

<table>
<thead>
<tr>
<th>Table 1.2. Domain 1: Classroom Strategies and Behaviors</th>
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<td>2. Tracking Student Progress</td>
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<td>3. Celebrating Success</td>
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<td><strong>Design Question 6: Establishing Rules and Procedures</strong></td>
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<td>4. Establishing Classroom Routines</td>
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<td>8. Previewing New Content</td>
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<td>9. Chunking Content into “Digestible Bites”</td>
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<td>10. Processing of New Information</td>
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<td>11. Elaborating on New Information</td>
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<td>12. Recording and Representing Knowledge</td>
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<td>13. Reflecting on Learning</td>
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<td><strong>Design Question 3: Helping Students Practice and Deepen New Knowledge</strong></td>
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<td>15. Organizing Students to Practice and Deepen Knowledge</td>
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<td>16. Using Homework</td>
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<td>17. Examining Similarities and Differences</td>
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<td><strong>Design Question 4: Helping Students Generate and Test Hypotheses</strong></td>
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<td>21. Organizing Students for Cognitively Complex Tasks</td>
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<td>22. Engaging Students in Cognitively Complex Tasks Involving Hypothesis Generation and Testing</td>
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<td>23. Providing Resources and Guidance</td>
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<td><strong>Lesson Segments Enacted on the Spot</strong></td>
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<td><strong>Design Question 5: Engaging Students</strong></td>
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<td>24. Noticing When Students are Not Engaged</td>
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<td>25. Using Academic Games</td>
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<td>26. Managing Response Rates</td>
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<td>27. Using Physical Movement</td>
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<td>28. Maintaining a Lively Pace</td>
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Marzano’s (2011) Causal Teacher Evaluation Model (see Figure 1.4) consists of four Domains that when implemented correctly, positively impact student achievement, see figure 1.4. Marzano’s research has focused on the causal links between Domains 1-3 and how the implementation of these domains improves student achievement (M. Toth, personal communication, August 2nd, 2012). The Domain 4 component of the model was designed based on professional learning communities’ research (M. Toth, personal communication, August 2nd, 2012). Domain 4 includes the structures that promote positive social interactions with colleagues that build a sense of community such as sharing ideas, and participating in school initiatives and is labeled: Collegiality (sharing authority for learning among colleagues) and Professionalism (skilled teachers who are open to learning). Domain 4, as seen in Figure 1.5., supports both sides of the model.

As discussed in the conceptual framework, PLCs constitute an organizational change intervention in this study, which may enhance individual development and organizational performance (Porras & Silvers, 1991). Based on the Marzano system, teachers’ understanding of Domains 1-3, cannot be achieved successfully without practicing collegiality and professionalism
(Domain 4). Thus acting as a community that engages in collective inquiry supports the learning of new instructional strategies (Stoll, et al., 2006).

Figure 1.4 Marzano Causal Teacher Evaluation Model (Learning Sciences, 2012)

Marzano, Frontier, and Livingston (2011) affirm that Domain 4 is not directly related to enhanced classroom strategies and behaviors however, collegiality and professionalism are the context in which the other domains function. Marzano et al. argue that if a school has high levels of Domain 4, see table 1.3., Domains 1, 2, and 3 are enhanced, As discussed in this literature review, promoting the exchange of ideas and strategies (which promotes a positive environment for learning) is supported by the research on PLCs (DuFour & Eaker, 1998; DuFour, Eaker, & DuFour, 2005). Promoting district and school development is represented in the Porras and Silvers (1991) model as improved organizational performance and enhanced individual development (organizational change outcomes). Collegiality and professionalism in Domain 4,
although only indirectly related to improved student achievement, form the foundation on which the other three domains are learned and implemented (Marzano et al., 2011).

<table>
<thead>
<tr>
<th>Table 1.3. Domain 4: Collegiality and Professionalism</th>
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<tr>
<td>Promoting a Positive Environment</td>
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<td>55. Promoting Positive Interactions with Colleagues</td>
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<td>56. Promoting Positive Interactions about Students</td>
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<tr>
<td>and Parents</td>
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<tr>
<td>Promoting Exchange of Ideas and Strategies</td>
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<tr>
<td>57. Seeking Mentorship for Areas of Need or Interest</td>
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<tr>
<td>58. Mentoring Other Teachers and Sharing Ideas and</td>
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<tr>
<td>Strategies</td>
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<tr>
<td>Promoting District and School Development</td>
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<tr>
<td>59. Adhering to District and School Rules and Procedures</td>
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<tr>
<td>60. Participating in District and School Initiatives</td>
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</table>

Summary

Stoll, et al. (2006), affirm that a key purpose of PLCs is to enhance teacher effectiveness. Therefore, research on how individual teachers in PLCs can learn (the model), and lead the learning, of a new teacher evaluation system, may contribute to understanding and implementing this mandated change. Teacher evaluation systems reflect criteria of teacher effectiveness which incorporate expectations, teaching ability, the effective use of resources, and collaboration.

Domain 4 (Marzano, 2011) serves as the learning framework for PLC members that enable them to learn the model and to lead the change.

Organizational Change Theory

Burke (2008) argues that organizations continually change, and that change can be both planned and unplanned. Planned change is the deliberate, conscious decision to improve the organization in some way; unplanned change is responding to some unanticipated external change in an adaptive and often spontaneous manner (Burke). This research explored planned change using PLCs as an intervention tasked with the implementation of a new teacher evaluation system mandate. As discussed in Chapter One, Porras and Silvers’ (1991) Planned Process of
Organizational Change Model, demonstrates a theory of planned change that proposes a process of how organization change occurs. The model begins with change interventions that are intended to affect certain target variables, which in turn affect individual behavior and ultimately improve organizational performance and enhance individual development. This model informed the change anticipated in the school district under study. The intervention in this study, PLCs, actually impacted both the vision and work setting. For example the vision of learning and leadership (organizational transformation), advocated a work setting (and mission) that included PLCs, or a community of learners and leaders, that facilitated the implementation of the new teacher evaluation system. The social factors and organizing arrangements as highlighted in the model (see Figure 1.2), included the establishment of school level professional learning communities. These PLCs learned the system together, practiced the strategies, lead professional development for teacher colleagues, and reflected on their experiences as learners and leaders of learning. As outlined in the model, it is suggested that cognitive changes will lead to behavior change and results in individual development and improved organizational performance. As discussed earlier, Burke (2008) argues that in certain instances behavior changes before cognition, particularly in emotional change situations. Given the history of public education, and the current system, Elmore (2008) affirms that the existing institutional structures create an environment that values isolated, individualistic learning at the expense of collective learning. The establishment of PLCs that share knowledge and construct meaning together will challenge teacher isolation. The purpose associated with this PLC intervention was to ultimately transform the system by leading the learning of new teaching strategies - enhanced individual development, which leads to improved organizational performance (all teachers rated as effective or highly effective at the end of the 2014 school year.)
Harris and Jones (2011) in their research on the implementation of whole systems reform, an example of planned change, in Wales, argue that PLCs offer a powerful way of engaging teachers in reflecting on and refining their practice. Further, that securing improvement across large numbers of schools and classrooms will not happen unless teachers are fully engaged in the change process and feel a high degree of ownership about the outcomes (Harris & Jones). Darling-Hammond and Mc Laughlin (2011) affirm that new approaches to the professional education of teachers require planned structures and supports where by teachers learn by doing, with opportunities to integrate theory and classroom practice. The implementation of a new teacher evaluation system is considered planned change because districts in the U.S. have had the opportunity to prepare for this change over a period of time. For example, the New Jersey Department of Education set districts up for statewide implementation with a series of memos outlining the requirements and timeline, and organized pilot implementations throughout the state beginning in March 1, 2011. Full implementation of the system was expected in the 2013-2014 school year.

**Schools as Learning Organizations**

The notion of pursuing knowledge as both an individual and a collective good (Elmore, 2008) informs the idea of a learning organization that supports work in PLCs. Peter Senge (1990), Director for the Center for Organizational Learning at Massachusetts Institute of Technology, in collaboration with colleagues established the basis for the concept of the learning organization. Senge (1990) defines the learning organization as “a place where people are continually discovering how they create their reality and how they can change it” (p.13). Senge affirms that organizations capable of adapting and learning have five core “disciplines” or aptitudes: personal mastery, mental models, shared vision, team learning, and systems thinking.
Regarding personal mastery, Senge (1990) postulates that organizations learn through individuals, so that successful organizations must have employees who are always learning. Mental models involve reflecting on, clarifying, and improving internal pictures of the work, and seeing how they shape actions and decisions (Senge, Kleiner, Roberts, Ross, & Smith, 1994). Senge defines shared vision “as the capacity to hold a shared picture of the future we seek to create” (p. 9).

Team learning, Senge’s fourth core discipline, emphasizes that resolving complex issues requires collective wisdom in solving problems. Schools benefit from feedback and distribution of findings which can guide improvement in teaching and learning by using team learning in the form of professional learning communities (DuFour, Eaker, & DuFour, 2005). Finally, systems’ thinking is “a way of thinking about, and a language for describing and understanding, the forces and interrelationships that shape the behavior of systems” (Davis & Davis, 2009, p.115). This last discipline helps determine how to change systems, drives continuous improvement, and discourages organizations and individuals from repeatedly making the same mistakes (Thornton, Shepperson, & Canavero, 2007). A school which consistently exhibits Senge’s five disciplines is considered a learning organization (Thornton, et. al, 2007).

Under Senge’s (1990) model, each of the disciplines described above is necessary to promote organizational learning and thus meaningful improvement of schools. Team learning, the fourth core discipline, when implemented in the form of PLCs leads to increased personal mastery as the team learns together (DuFour, Eaker, & DuFour, 2005). Thornton, et al. (2007), in their research on a systems approach to school improvement using program evaluation and organizational learning, argue that feedback, the flow of knowledge and subsequent changes in individual and institutional behavior are necessary functions for organizational change. The key to the development of a learning organization is effective and systematic feedback provided by
school leadership, and organizations that learn are able to disseminate information, problem-
solve, experiment, and analyze their own and others experiences (Thornton, et al., 2007). The
implementation of a new teacher evaluation system using PLCs allowed for reflections, and
discussions of the domains, practices within those domains, and how they impact student
learning. In addition, practicing the teaching behaviors and analyzing the student results in the
form of observations and data analysis encouraged behavior change and changes in thinking as
suggested in the Porras and Silvers (1991) change model.

A change in cognition ultimately leads to Senge’s (1990) concept of systems thinking; the
fifth core discipline. Senge (1990) posits that “Systems thinking requires that organizational
components constantly review, re-evaluate, and stabilize in the short-term so that the entire
system plans strategically to align resources and identify highly effective functions” (as cited in
Thornton, et al., 2007, p.53). Thornton, et al. argues that schools that provide effective feedback
are able to illuminate factors associated with effective instruction, diverse learning, complex
interactions, and intentional and unintentional outcomes. Further, that formative feedback is a
component of program evaluation and helps promote systems thinking by measuring impacts of
the interactions across the school. Thus team learning expands skills, improves effectiveness in
the classroom, and builds instructional capacity. Lastly, if change is supported by vision and
leadership, and tied to accountability, schools can link student outcomes, instruction, and decision
making to an overarching plan (Thornton, et al, 2007).

Phillips (2003), in her research on an urban middle school instituting learning
communities affirms that implementing new systems requires changes in organizational structures
which can include goals, specialized roles, formal relationships, procedures and hierarchies so as
to create school cultures that advocate greater collaboration. Using qualitative data, she described
how teachers collaborated on leadership teams and in study groups to develop an authentic learning community. Davis, Ellett, & Annunziata (2003) in their study of The Professional Assessment and Comprehensive Evaluation System (PACES), currently used with teachers and instructional support staff in the Miami-Dade County Public Schools argue that meaningful teacher evaluation encourages the development of a type of school leadership consistent with new, non-centrist, organization wide conceptions of leadership. Further, that a sustained, supportive learning culture is necessary to implement such a system. PACES has been designed to support the development of a culture of professional collaboration among teachers and administrators including peer and administrator mentoring, and the development of reflective practice in teaching and learning (Davis, et al., 2003). The concept of a learning organization suggests a culture of professional collaboration among teachers and administrators which requires a leadership structure that supports the notion of broadening the base of leadership. This calls for a different form of leadership, one that allows teachers to share their expertise and create a collective responsibility for improving student learning, and teaches district and building leaders the value of inviting teachers into leadership (Kennedy, Deuel, Nelson, & Slavit, 2011).

**Wenger’s Communities of Practice**

In addition to viewing PLCs as learning organizations, Wenger’s (1998), communities of practice theory suggests a connection between organizational knowledge and collective action. Communities of practice as applied to the school setting, particularly during times when change may destabilize existing practice, involves grouping together administrators and teachers in order to learn and problem solve together (Bouchamma & Michaud, 2010). Harris and Jones (2011) piloted a model of professional learning communities in six schools to support improvement and change across the education system in Wales. Their reform model drew profoundly upon the
theory of change implicit in Wenger’s notion of communities of practice. Within such communities, Wenger (2002) affirms, practice is developed and refined through the collaboration of groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise by interacting on an ongoing basis. In the Harris & Jones (2011) study, schools identified an issue for examination and worked as a team to collect data and prepare information to present to other schools. Following the sharing of progress, each school decided upon an innovation and spent the next six months working to implement this innovation with the support of other schools in the group. The focus for change included such topics as thinking skills, the integrated curriculum, and student engagement. All of the pilot schools in Wales demonstrated early evidence of changed professional practice as a result of their PLC work. Harris and Jones argue that system wide change is only possible through entire system collaboration and networking, with a non-negotiable focus on pedagogical improvement. Given the complexity of change, organizational change advocates affirm that school transformation needs to be embraced collegially throughout the system. They advocate for schools to be restructured into genuine learning organizations for students and teachers so that they may become skilled at dealing with changes (Fullan, 2008a, 2008b).

Lakomski (2004), in her essay comparison of Wenger, Mc Dermott, and Snyder’s (2002) *Cultivating Communities of Practice: A Guide to Managing Knowledge* and Dixon’s (2000) *Common Knowledge: How Companies Thrive by Sharing What The Know*, affirms that Dixon’s observations identify a fundamental change in the ways organizations think about knowledge. Lakomski posits that knowledge as the privilege of select groups of experts has begun to shift to one where knowledge is considered to be distributed throughout the organization. Both texts, Lakomski argues assume that common knowledge is the asset that is required for organizational
growth and success. For Wenger et al. “communities of practice provide the generative and embedding frameworks for the development of common knowledge” (as cited in Lakomski, p. S89). Sharing experiences leads to the construction of new meaning as well as cohesion amongst members which enables members of the community to become more effective in their workplace, particularly during times of change (Wenger, 1998).

Bouchamma and Michaud (2011) using Wenger’s (1998) notion of communities of practice to inform their research, presented the results of a study of interviews conducted with members of a community of practice comprised of school principals, vice principals, and department heads responsible for teacher supervision. The researchers found that the participants learned new knowledge from others, enriched their supervision practices, and also gained practical skills with regard to the supervisory process. Furthermore their discussions resulted in the creation of friendships and sense of collegiality as they became agents of change. The authors hypothesize that “any change requires changes within the professional practices of those who apply it, and that this new information cannot be mastered individually” (p. 404). Further, they state:

Many have expressed concerns regarding the processes and strategies used to integrate reforms such as the mechanized and reductionist vision of this process of change in which the actors are considered as individuals rather than members of a system, as well as a style of management limited to general and specific orientations trickling down from the top where interventions fail to involve teachers who are directly affected and the most likely to develop the right strategies and expertise to not only stimulate but sustain change. (Bouchamma & Michaud, 2011, p. 404).
Hartnell-Young (2006) explored four roles of teachers in classrooms using computers from the perspective of communities of practice (Wenger, 1998). The four roles of teachers included; designing the learning environment, managing people and resources, mediating student learning, and improving practice. This in depth study undertaken in 12 schools demonstrated that teachers appropriated technology in a range of ways to help them create classroom communities that build knowledge. Some teachers engaged in professional learning through curriculum projects with other teachers and their students as new communities of practice formed. The author concludes that an understanding of communities of practice is likely to be useful in school transformation involving teaching practices. They suggest a need for collective competencies of the people in teaching positions to benefit the learners they interact with as well as the need for teachers and leaders to cross boundaries and broker relationships across a range of spaces.

**Organizations as Complex Systems**

A systems approach to school improvement warrants significant institutional change in the areas of communication, coordination, time, money, assessment, and realignment of human resources (Thornton, Shepperson, & Canavero, 2007). In addition, individual learning, the flow of knowledge, and subsequent changes in individual and institutional behavior are necessary for systems change (Huber, 1991). While multiple theories exist, systems change theories agree that organizations are complex but flexible entities, and they can learn and adapt mainly through the interactions of the individuals within them, benefiting from increased individual understanding which translates into change in organizational behavior (Argyris & Schon, 1978; Senge, 1990). These researchers argue that organizational change needs to take place through transitional phases whereby competencies can be developed to move from the current structure into a more desired
state to take advantage of opportunities or respond to needs. This idea informed the gradual implementation of a new teacher evaluation system.

This gradual implementation process may require a new form of leadership. Leadership that creates environments in which individuals expect to have their ideas and practices subjected to the scrutiny of their colleagues, and to share these ideas in groups requires a changed mindset that is open to continuous learning and sharing (Elmore, 2008). Davis and Hunt (2009) affirm that due to the randomness and unpredictability of complex systems, leadership is complex. They argue that leaders may be required to assume the role of both a leader and a follower making them “complex leaders.” Complex leaders encourage lower-level staff interactions to develop and analyze the “what” circumstances of a situation to promote deeper analysis and problem solving at lower levels, rather than spelling out the “how” and halting the process (Davis & Hunt, 2009, as cited in Organizational Dynamics; Encyclopedia of Leadership). Harris and Jones (2011) affirm, in the results of their study that without support and drive from the top, PLCs will have little impact and lose momentum quickly. Further, leadership needs to establish a high trust environment where it is safe for teachers to change practice and to innovate (Harris & Jones, 2011).

**Summary**

Organizational Change Theory has been presented in this section via the Porras and Silvers (1991) Planned Process for Organizational Change model which grounds the research. The construct of a learning organization pioneered by Senge (1990), and his notion of team learning and systems thinking tie directly to the vision and work setting in the Porras and Silvers Model (1991), as well as the individual organizational member cognitive and behavior change
components in the model. The notion of Wenger’s (1998) communities of practice inform a work setting organized into PLCs as a means of developing cohesion, constructing meaning, and sharing a common vision during periods of change.

Finally, systems are complex entities that learn and adapt through the interactions of the individuals within them, which translates into change in organizational behavior (Argyris & Schon, 1978; Senge, 1990). Systems require complex leaders who listen and trust, and can at times assume the role of follower (Davis & Hunt, 2009). As many learners work together, potentially in PLCs, they are constantly cultivating new leaders, and in many instances, distributing leadership, the next section of this literature review.

**Distributed Leadership Theory**

A powerful force in the pursuit for alternative and authentic perspectives on leadership practice is the notion of “distributed leadership” which is receiving growing empirical support (Gronn, 2000; Spillane et al., 2001). Spillane et al., (2001) affirm that instructional improvement requires that people with multiple sources of expertise work in concert around a common problem, and that this distributed expertise leads to distributed leadership. Spillane et al. (2001, 2004, 2006, 2007) defines distributed leadership as “those activities that are either understood by, or designed by, organizational members to influence the motivation, knowledge, affect, and practice of other organizational members in the service of the organization’s core work” (p. 7).

Spillane, Coldren, and Diamond (2001) argue that a distributed leadership framework requires that leadership activity is distributed in the interactive web of actors, artifacts, and situations. As a result, leadership practice is not simply the responsibility of positional leaders, but is stretched over the work of both formal and informal leaders. And, that not only does one
need to act as a leader, but leadership is contingent on expertise (Barnard, 1938). The notion of “distributed leadership, therefore, means multiple sources of guidance and direction, following the contours of expertise in an organization, made coherent through a common culture” (DeFlaminis, 2011, p. 6). Distributed leadership is the glue of a common task or goal – such as the implementation of a teacher evaluation system, and a common frame of values for how to approach the task (Elmore, 2000).

A series of articles on distributed leadership were featured in the 2008 Journal of Educational Administration. Scholars (e.g., Gronn, 2008; & Hartley, 2007) affirmed that distributed leadership’s time has come, and that it is the best way to view leadership; as a task of designing organizational systems, teams, and cultures in establishing the conditions for others to succeed. Spillane (2006, 2007, 2011); Harris (2008), and other scholars have discussed the effects of distributed leadership relative to school achievement, greater teacher participation, more effective retention and succession, organizational change outcomes, and a more sustainable means of building a learning focused climate (See also Leithwood et al., 2006 a., b., Leithwood et al., 2007; Heck & Hallinger). Heck and Hallinger (2010) suggest however, that future research should seek to collect more thorough information about leadership efforts to change teachers’ instructional behavior in the classroom. Changing instructional behavior by distributing teacher leadership in building level PLCs tasked with a goal, to implement a new teacher evaluation system, was precisely the focus of this study.

In their review of successful school improvement efforts, Glickman et al. (2001) constructed a composite list of the characteristics of what they term the “improving school,” or a school that continues to improve student outcomes for all students over a period of time. At the top of the list appeared various sources of leadership, including distributed leadership. Similarly,
research by Silns and Mulford (2002) demonstrates that student outcomes are most likely to improve where leadership sources are distributed throughout the school community, and where teachers are empowered to innovate, develop, and learn together, and to take the wheel and drive their own learning (Kennedy, et al., 2011). Pederson, Yager and Yager (2010) in their research on the effects of distributed leadership on professional development initiatives, found that when a core group of teachers identified as experts and helpers is in place, this enables faster and deeper implementation of professional development initiatives. This study also demonstrated that when teachers view their principal as a learner, learning about good quality teaching alongside of him/her, the depth of the implementation will be dramatically increased (Pedersen, et al., 2011). The PLC approach to teacher evaluation focused on teachers as experts learning and working with building teachers and administrators. The next section describes a study that demonstrates how by distributing leadership in a large urban district, principals were able to facilitate instructional improvement.

The Design and Implementation of the Annenberg Distributed Leadership Project

The Building Distributed Leadership in the Philadelphia School District Project was an Annenberg Foundation funded initiative developed by DeFlaminis (2011) at the Penn Center for Educational Leadership at the University of Pennsylvania. The purpose of the project was to build distributed leadership teams to assist new urban principals struggling to lead instructional improvement in their schools. The project began in 2004 (lasting 5 years), in one of the largest school districts in the country with 190,000 students (K-12) enrolled in 263 schools. The Philadelphia school district was also identified as one of the most socio-economically, financially, and academically troubled school districts in the US. In the first three years of the project there were three turnovers of top-level leaders and their staffs. In addition, the district faced an
extremely high rate of turnover among school leaders. For example, nearly one in five schools (45) across Philadelphia public school system began the 2003-2004 school year under the direction of a new principal. The project targeted new school leaders and their teachers in an effort to build distributed leadership teams as well as to build leadership capacity for Philadelphia schools. Using a mixed-methods cluster randomized control design, 16 randomly selected elementary, middle and high schools were selected to participate in the project.

The project work prepared new principals and teacher leaders to function in a distributed leadership team in order to improve teaching practices and student learning. The goals of the projects were to develop model distributed leadership teams and professional learning communities in 16 schools; to develop a targeted professional development strategy and regional teacher leadership center; to develop over 80 effective teacher leaders who could support 16 new principals in achieving and sustaining building-level instructional leadership; to utilize other leadership building strategies including PLCs and coaching to support distributive leadership teams, and achieve improved instructional focus and student outcomes; and to create model distributed leadership agreements with the Philadelphia School District and its unions.

During the first year of the Project, distributed leadership teams attended 70 hours of professional development modeled on Spillane’s (2006) conception of distributed leadership. Ongoing training focusing on building trust, change strategies, developing a shared vision, analysis and use of data, and building networks was provided throughout the project period. The initial goal of the training was to cultivate teams that function as PLCs with a focus on instructional leadership and improvement. These teams served as a catalyst for change in the school by both sharing their expertise in specific instructional strategies and by working to
establish and support norms of collaboration and collegiality among the school staff. This fostered professional inquiry into practice and support for instructional improvement.

Results of the project confirmed that distributed leadership teams improved instruction, facilitated a changed culture, built capacity, and with the assistance of the Penn Literacy Network, who provided coaching in literacy and math best-practices, enhanced student achievement. Lessons learned from the project affirmed that: (1) the principal’s support is essential to the success of a distributed leadership school; (2) the distributed leadership focus on instructional improvement required that the district have a well developed curricula and instructional plan; (3) distributed leadership could be implemented successfully in randomly-selected, urban schools; (4) teachers can plan the best professional development in the context of their school; (5) a teacher leader’s motivation is an important element of their effectiveness in implementing distributed leadership, and (6) effective teacher leaders can be found in every school and many are already well developed with the necessary expertise.

Project findings relevant to this study are that principals and team leaders (operating as a PLC) forged new working relationships that productively expanded the leadership capacity in the participating schools. In addition, team members worked strategically to change instruction through a variety of approaches and targeted areas that they determined to be their school’s greatest need, teachers were able to plan professional development in the context of their school, and there was substantial evidence of positive impacts on the instructional practices of teachers who were the targets of team member action plans (DeFlaminis, 2011).

The Annenberg project and other research found that distributed leadership shows promise in building a learning community. Distributed leadership has been described as a construct, framework, and perspective; one that if adopted, can promote school improvement and student
achievement through “improved communication of mission and goals” (Heck & Hallinger, 2010, p. 871), and effective allocation of leader tasks and leader practices, according to the situation at hand (Heck & Hallinger, 2010; Spillane, Halverson, & Diamond, 2004; & Spillane & Healey, 2010). Distributed leadership acknowledges formal leaders, such as principals, while also recognizing the contributions of others who possess the expertise that enables them to take on leadership roles as situations demand. Distributed leadership is coordinated and collaborative, foundational to supporting PLC work (Spillane, Diamond, Sherer, & Coldren, 2005).

Summary

Wenger (2004) suggests that distributed leadership enacted in situational contexts serves as the theoretical framework behind the development of professional learning communities. The distributed leadership perspective provides a framework for collaborative, task-oriented leadership practice that draws upon the expertise of multiple individuals (DeFlaminis, 2011; Sprillane et al., 2001, 2004, 2006, 2007). This section has highlighted seminal research in this area which points directly to changing teachers’ classroom instructional behaviors (DeFlaminis; Kennedy, et al., 2011; Silns & Mulford, 2002).

Chapter Summary

This literature review has examined salient research on Professional Learning Communities. As a new paradigm for professional development, PLCs have been linked to professional development (Darling-Hammond & McLaughlin, 2005), building collaborative cultures (Stoll et al., 2006), improved instructional practices (Louis & Marks, 1998), and student achievement (Bolam et al., 2005). Teacher evaluation, the context of this study, its history, and problems with the current system has been presented (Goe et al., 2008). A discussion of the
NEA’s (2012) response to the new teacher evaluation system mandate has been included. An illustration and discussion of the Marzano Causal Teacher Evaluation System (2011), including Domains One and Four have been incorporated. The Marzano model served as the context for this study and situated the research methodology.

A systems approach to school improvement warrants significant changes in the areas of communication and collaborative decision making (Elmore, 2008). Senge (1990) and his concept of a learning organization emphasizing shared vision, team learning, and systems thinking, serve as the foundation for building intellectual and professional capacity. Spillane’s (2001) work on distributing leadership by distributing expertise, has demonstrated an impact on school performance and student outcomes (DeFlaminis, 2011). Wenger (2004) argues that distributed leadership enacted in situational contexts serves as the framework for professional learning communities.

This literature review has revealed that the problem of implementing a teacher evaluation system using professional learning communities is a complex initiative. Systems thinking (Senge, 1990) occurs as a result of a significant shift in the culture of the organization. The culture of a school includes the beliefs, practices, and behavior that occur within the classroom and school building. Schein (1985) and Nelson (2008) affirm that cultural transformation requires team work, open communication, and inquiry-based collaborative learning. Change in this study, began with a mandate by the New Jersey Department of Education: The implementation of a new teacher evaluation system. The implementation of this system required professional development for teachers and administrators, and in this study, the professional development was planned and organized around the use of school level PLCs. The establishment of building level PLCs constituted an organizational intervention. The PLCs’ were tasked with the implementation of the
new teacher evaluation system which included planning and delivering professional development sessions to colleagues. This new teacher evaluation system affected the expectations for teaching practices, and how those teaching practices were to be measured. This in turn, affected both behavioral and cognitive change (in teachers and administrators), which as measured by final teacher and administrator summary assessments may ultimately lead to improvement in individual performance and ultimately, the organization (Porras & Silvers, 1991). This study explored the implementation of this intervention using school level PLCs.

By implementing a basic qualitative research approach, this study anticipated capturing teacher PLC members’ perceptions of their individual learning and leadership experiences during the implementation of the new teacher evaluation system. This report now moves onto an explanation of the research methods that were used to explore and examine this phenomenon.
CHAPTER 3: RESEARCH METHODS

Purpose Statement and Research Questions

Using a general inductive methodology, the purpose of this study was to explore teachers’ experiences learning and leading change in a professional learning community tasked with planning and implementing a new teacher evaluation system in a small mid-Atlantic school district. The research questions informing this study were:

1. How do PLC members’ describe the purpose of a PLC tasked with implementing a new teacher evaluation system?
2. How do PLC members’ describe their experience of learning through the process of collective inquiry?
3. How do PLC members’ describe their experience as leaders in this change effort?

In this chapter, basic qualitative research design is discussed followed by a discussion of the participant sample. Next, methods for collecting and analyzing are presented. Finally, this chapter includes a discussion of trustworthiness, the qualitative response to checking for validity and reliability in qualitative research.

Research Design – Qualitative Research

Qualitative research is a research method used to explore and understand the meaning individuals or groups attribute to a social or human phenomenon. This type of research takes place in a natural setting, using an inductive approach, with emphasis on understanding the words of the participants (Creswell, 2009; Fraenkel & Wallen, 2009; & Maxwell, 2005). Creswell (2009) affirms that to understand approaches to research, the researcher needs to consider “three framework elements: philosophical assumptions about what constitutes knowledge claims,
general procedures of research called strategies of inquiry, and detailed procedures of data
collection, analysis, and writing, called methods” (p.16). The knowledge claim for this study was
social constructivism originating from the work of Berger and Luckmann (1967) and Lincoln and
Guba (1985). More recent writers have articulated this position (e.g., Lincoln & Guba, 2000;
Neuman, 2000; & Schwandt, 2000). Assumptions identified in these works embrace the idea that
the meaning of the world is socially constructed by individuals in interaction with a social
that individuals seek understanding of their world, and develop subjective meanings of their
experiences which are directed toward certain objects. Because these meanings are varied, the
researcher looks for complexity of views rather than narrowing meanings into a few categories.
The goal of the research using this constructivist approach is to rely as much as possible on the
participants’ views of the situation being studied using broad, open-ended questions that
encourage participants to construct the meaning of the situation. The researcher listens carefully
to participants in their natural setting acknowledging that what people say is a result of their
interactions with their social community, thus the term social constructivism (Creswell).

Another process that supports the knowledge claim for this study is interpretivism, a
sociological strategy for understanding the actions and meanings of individuals in the context of
their own personal perspectives (Williams, 2000). Arising from cultural anthropology, an
interpretivist perspective assumes that the world is not simply out there to be discovered, but an
ongoing story told and refashioned by the particular individuals involved (Butin, 2010). Contrary
to a positivist perspective whereby the research goal is to figure out the truth of a situation, an
interpretivist researcher is already part of the story about the truth because she is the one
examining it and describing it, and furthermore, all the researcher can do is to accurately
document the perspective being investigated. As such, reality is subjective, socially constructed by the individual, and may be described through diverse perspectives (Butin, 2010). Individuals develop subjective meanings of their experiences, these meanings are varied and multiple, leading interpretivist researchers to look for the complexity of perspectives in an attempt to explore or understand a phenomenon (Creswell, 2008). The researcher relies on the participants’ perceptions, knowing these meanings of the world may change over time; thus understanding what those interpretations are at a particular point in time and in a specific context, is the goal of qualitative research (Merriam, 2002), and this study.

Exploring how individuals experience and interact with their social world, which in this study included turn-keying a new teacher evaluation system; the Marzano Causal Teacher Evaluation Model (Marzano, 2007) using PLCs, is considered a basic qualitative approach (Merriam, 2002). This research captured the perceptions and made sense of what it meant for teachers to be learning in PLCs, and to be assisting with leading the implementation of the Marzano Model. In order to understand the meaning of this phenomenon, the strategy of inquiry used was the collection of data through in-depth interviews of teachers, as the primary sample, and administrators as the secondary sample used to cross check or triangulate the teachers’ data. While coding the interview data, and examining field notes, recollections of observations of members working in their PLCs preparing for the in-service and delivering the training sessions to their teaching colleagues were recorded as observations. Field notes, defined as “written documentation of participant observation, which may include the observer’s personal and subjective responses to and interpretations of social action encountered” (Saldana, 2013, p. 42) were written after each interview as a form of analytic reflection. Toward the end of the study, it was determined that additional data sources would enhance the meaning of the interview and
observation data and further triangulate the findings. Thus, permission from the district to analyze feedback forms from teaching colleagues that were completed after each of the three in-service days was initiated. It is noted that these surveys were collected for administrative purposes during the in-services in 2012 and 2013, and not for research purposes. The documents were analyzed and coded, with excerpts from open ended questions weaved throughout the findings. The documents’ data substantiated the categorical findings, and adding these data toward the end of the writing process, is consistent with qualitative research being both emergent and changing (Merriam, 2009). Member checking took place whereby the researcher emailed two executive summaries, one after the first thirteen interviews were coded and analyzed, and again after the second thirteen interviews were coded and analyzed. Personal meetings with two of the study participants provided feedback on the themes and definitions, as well as multiple iterations with my advisor, Dr. Bennett, before they were finalized and written up in chapter four, findings. The research findings are reported under themes, and properties within those themes, in chapter four. I recognized that my own experience as a district leader shaped my interpretation of these perceptions, and that I “positioned myself” in the research acknowledging how my interpretation flowed from my own personal and historical experiences (Creswell, 2008); I had been in the district in a leadership capacity for over three years at the time of the study; my goal however, was to uncover a phenomenon for the PLC members involved in this practice-based research (Merriam, 2009).

To address the research questions in my study, I chose a basic qualitative research approach (Merriam, 2009) to understand the complex perceptions (meaning-making) my sample had regarding the implementation of a new teacher evaluation system. The theoretical basis for qualitative research design is process theory (Maxwell, 1994). In contrast to variance theory
which deals with variables and the correlations among them and is used in quantitative research; process theory looks at events and the processes that connect them and is based on an analysis of the causal processes by which some events influence others (Maxwell, 2005). The research questions in qualitative research focus on the process by which different phenomena and events contribute to the outcome, such as questions about the meaning of events and activities to people involved in these events (Maxwell, 2005). For example, qualitative researchers tend to ask how x may play a role in effecting y, and what the process is that connects x and y (Maxwell, 2005). Conversely, quantitative research is interested in to what extent x causes y and is a means for testing objective theories by examining the relationship among variables (Creswell, 2009). The process of qualitative research involves emerging questions regarding situation-specific phenomena, is an open-ended, inductive approach that allows for discovery of meanings and influences (Creswell, 2009; Maxwell, 1994).

Qualitative research takes place in the natural setting, relies on the researcher as an instrument for data collection, includes multiple methods of data collection, and is based on participants’ construction of meaning (Creswell, 2009; Thomas, 2006; & Merriam, 2002). The research is emergent, involves the use of a theoretical lens, is interpretive, and holistic (Creswell, 2009). The strategy of inquiry may include the study of individuals (narrative, phenomenology), the exploration of processes, activities and events (case study, grounded theory), or the examination of broad culture-sharing behavior of individuals or groups (ethnography) (Creswell; 2009, Maxwell, 1994; Merriam, 2002). I chose a basic interpretive design because I was not attempting to build theory, explore a program, or capture life experiences with individual narratives. This study employed a general inductive approach to explore teacher PLC members’
perceptions of changes in their personal learning and leadership that took place during the process of implementing a new teacher evaluation model.

**Research Tradition**

The studies cited in the proceeding literature review regarding PLCs seek answers to how and why questions of process, meaning, and context (Maxwell, 2005) and inform a strategy of inquiry that uses a qualitative approach to the research (Creswell, 2007). For example, Strahan’s (2003) questions focus on how teachers and administrators articulate collaborative agendas for reform, how they have strengthened their PLCs, and how PLCs have nurtured instructional improvement. Phillip’s (2003) questions examine how high quality professional development effects the academic achievement of ‘regular’ (non-magnet) middle school students. Little (1982) examined the ‘school as a workplace’ and how norms of analysis, evaluation, and experimentation influence school success.

Merriam (2009) writes that if the researcher is interested in understanding a phenomenon, she may use a basic interpretive study paradigm; “qualitative researchers are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences” (p. 5). The characteristics of qualitative research according to Creswell (2009) include the following: (1) Natural setting – qualitative researchers collect data in the field at the site where participants experience the problem under study; (2) The researcher is a key instrument – qualitative researchers collect data themselves through examining documents, observing behavior, or interviewing participants; (3) Multiple sources of data – qualitative researchers gather multiple forms of data, such as interviews, observations, and documents, rather than relying on a single source of data; (4)
Inductive analysis – qualitative researchers construct their patterns, categories, and themes from the bottom up, by organizing the data into increasingly more abstract units of information; (5) Participants’ meanings – In the qualitative process, the researcher keeps a focus on learning the meaning that the participants hold about the problem, not the meaning that the researcher brings to the research; (6) Emergent design – The research process for qualitative researchers is emergent, such that the initial plan for research cannot be tightly prescribed and may change after the researcher enters the field and begins to collect data; (7) Theoretical lens – qualitative researchers often use lens to view their studies; (8) Interpretive – qualitative research is a form of interpretive inquiry in which researchers make an interpretation of what they see, hear, and understand: (9) Holistic account – qualitative researchers try to develop a complex picture of the issue under study that emerges from multiple perspectives.

Interpretive qualitative research seeks to understand the meaning people have constructed of their world and their experiences, and “is an effort to understand situations in their uniqueness as part of a particular context” (Patton, 1985, p. 1). In exploring the phenomenon of using PLCs to implement a teacher evaluation system, I attempted to inductively build a richly descriptive report from open ended interview questions, observations, and copious field notes, written up immediately after each interview. The notes written after each interview answered the following questions: “What did I see and hear and what was I thinking (during the interview)?” These notes were reflected on during the data analysis process, and incorporated into the research findings. A “rich” description includes data that are detailed and varied enough that they provide a revealing picture or story of what is going on (Maxwell, 2005). In interview studies these data require verbatim transcripts. The words that were transcribed and later presented in the findings section included verbatim quotes from participants’ interviews and descriptive data (regarding
what I saw, heard and thought about during the interview) taken from the field notes maintained in a reflective journal. All of these data contributed to the descriptive nature of my qualitative research design.

**Research Site**

My research site was Middle Township Public School District located in Cape May Court House, Cape May County, New Jersey. The township has a total area of 83.1 square miles of which 71.3 square miles of it is land, and 11.8 square miles is water. Middle Township borders Dennis Township, Sea Isle City, Avalon, Stone Harbor, The Wildwoods, Lower Township, and the Atlantic Ocean and Delaware Bay.

As of the census of 2010, there were 16,405 people, 6,009 households, and 4,218 families residing in Middle Township. The racial makeup of the township was 85.21% White, 10.86% African American, 0.23% Native American, 1.44% Asian, 2.12% Hispanic, 0.02% Pacific Islander, 0.66% from other races, and 1.58% from two or more races.

The school district population for 2012-2013 was 2691 students. There are four school buildings; a PK-2, 3-5, 6-8, and 9-12 school. District wide, 41% of the students qualify for the free and reduced lunch program. The racial/ethnic makeup of the students is 70.6% White, 18.8% African American, 6.9% Hispanic, 2.6% Asian, and 1.1% other.

As the Director of Curriculum and Instruction, for Middle Township Public Schools, I was intimately involved in the selection of the Marzano Model protocol. Under my direction, the selection of the model took place through the collaboration of a volunteer task force of 15 staff members from the four school buildings. The selection of an evaluation model was part of the state’s Educator Effectiveness for New Jersey initiative (EE4NJ) which would later become the
Teacher NJ Act, and law (2012), in the state of New Jersey. The New Jersey Department of Education’s (NJDOE) approved teacher evaluation models selected by the Task Force, were: Charlotte Danielson: Framework for Teaching; Robert Marzano: Marzano Causal Teacher Evaluation Model; McRel: Mid-Continent Research for Education and Learning; TAP: Teacher Advancement Program; and James Stronge: Evaluating Teaching. Districts were permitted to choose another model, or create their own, as long as it met the established NJDOE criteria. The NJ DOE required districts to submit the names of their selected instruments as part of a February 2013 reporting requirement.

Over a period of a year, Middle Township’s Teacher Effectiveness Task Force carefully reviewed the five state approved models, presented the models to all members, and unanimously selected the Marzano Causal Teacher Evaluation Model. The president of the teachers’ association was invited to be a member of the task force in order to be a voice for the teachers’ association. The decision was announced by the district to move forward with the Marzano model in May of 2012. The district superintendent and I delivered a power point presentation at each of the four school’s faculty meetings in June of 2012 outlining the process the district went through in making this decision, as well as the district’s plan to use PLCs to turn-key the in-service trainings during the upcoming school year.

In New Jersey, an outgrowth of the Teacher Effectiveness Task Force is the requirement that each district convene a District Evaluation Advisory Committee (DEAC) to help guide the implementation of the new evaluation systems. Prior to establishing this committee, our administrative team of four building principals, the superintendent, assistant superintendent, and me met during the spring of 2012. At that meeting I shared the research of Alma Harris and Michelle Jones on Professional learning communities and system improvement (2011). This pilot
study conducted in Wales, focused on six schools, and used professional learning communities to reinforce professional networking and collaboration to stimulate innovative teaching practices and raise collective and individual performance, within, between and across schools. The study also emphasized the importance of distributed leadership involving multiple individuals and crossing organizational boundaries. The goal of their research was to examine the use of PLCs to drive system improvement by improving teaching practices that engage students to think critically.

Using the research of Harris and Jones (2011) to frame the discussion (at our administrative meeting) of how to roll out the implementation of the model, we discussed the notion of systems change that would be required within the context of the mandate, and determined that we would organize our DEAC as a PLC, as well as establish four separate PLCs at each of the school buildings. The district teaching staff had received professional development on PLCs in the prior year, thus all were familiar with how PLCs functioned. These building level PLCs would be given the task of turn-keying training to their teaching staff members in their buildings during three planned district in-service days. It was understood that the administration would support this process by allowing release time (one to two days) for teachers to attend training, and plan their own building professional development sessions. Administrators could opt to co-facilitate if they chose to, however, it was understood that the teachers would be responsible for the delivery of the Marzano teacher evaluation model content. It was agreed that building administrators would be present during the entire training to assist teachers in answering questions, or just to support their sessions, knowing this initiative could become highly volatile with certain staff members (those resistant to change). The district agreed to pay the teachers $30 per hour for three six hour training sessions which constituted $540 each. The DEAC for Middle Township Public Schools is in Table 1.4.
Participants

Purposeful selection, also called purposeful sampling (Cresswell, 2007; Maxwell, 2005; Merrian, 2009) was used to acquire participants for the study. A purposive sample represents a nonrandom sample selected because prior knowledge suggests it is representative of the greater population, or because those selected have the needed information (Fraenkel & Wallen, 2009). In this sampling strategy, people and settings are deliberately chosen based on their experiences and ability to provide information that answers the research questions from their individual perspectives (Creswell, 2007). The participants selected were well versed in the state legislation regarding the mandate and had volunteered to be part of the committee who selected the new evaluation system.

The cohort of ten teachers (selected from a total sixteen teacher PLC members) who planned and turn-keyed the training of the model served as the primary participant sample. A secondary sample of three building leaders served to triangulate the data and inform the phenomenon under study. *Turn-key training* describes a form of training where the participants receive direct training from *Learning Sciences* on the terminology and components of the Marzano Causal Evaluation Model with the purpose of learning it themselves, and then sharing their knowledge and understanding with their teacher colleagues. After each single day training the PLC was given one to two days of release time to plan and deliver the training to their colleagues in their respective schools. The primary purposive sample consisted of ten teacher volunteers; three from Elementary School #1, two from Elementary School #2, two from the Middle School, and three from the High School. The secondary sample represented the Principal from Elementary School #1, the Principal from Elementary School #2, and the current shared
Assistant Principal from these two elementary schools who served as the Assistant Principal at the High School during the study. These administrators were chosen because they were administrators who were involved in the turn-key process in each of their respective buildings.

The study participants (teachers and administrators) in the sample were randomly drawn from the District Evaluation Advisory Committee (DEAC). The following table (1.4) District Evaluation Advisory Committee and Final Sample, represents membership in the DEAC, and the final sample PLC participant sample which is highlighted in yellow.

**Table 1.4 DEAC – District Evaluation Advisory Committee and Final Sample**

<table>
<thead>
<tr>
<th>Elementary #1 PLC</th>
<th>Elementary #2 PLC</th>
<th>Middle School PLC</th>
<th>High School PLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd grade-female</td>
<td>3rd grade-female</td>
<td>Math-female</td>
<td>Music-female</td>
</tr>
<tr>
<td>Kindergarten-female</td>
<td>3rd grade-female</td>
<td>English-male</td>
<td>English-female</td>
</tr>
<tr>
<td>1st grade-female</td>
<td>4th grade-female</td>
<td>Social Studies-male</td>
<td>Science-male</td>
</tr>
<tr>
<td>2nd grade-male</td>
<td></td>
<td>Math-male/non-white</td>
<td>Social Studies-male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Math-female</td>
</tr>
<tr>
<td>Principals/Supervisors</td>
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<tr>
<td>Principal</td>
<td>Principal</td>
<td>Principal</td>
<td>Principal</td>
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<tr>
<td>Supervisor</td>
<td>Assistant Principal</td>
<td>Assistant Principal</td>
<td></td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>Supervisor – English</td>
<td>Assistant Principal</td>
<td>Athletic Director</td>
</tr>
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<td></td>
<td>Supervisor – Math</td>
<td></td>
<td>Supervisor – Math</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supervisor - English</td>
</tr>
<tr>
<td>District</td>
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</tr>
<tr>
<td>Superintendent of Schools, Assistant Superintendent, Director of Curriculum &amp; Instruction, Board Member, Board Member</td>
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</tbody>
</table>
According to the law, the DEAC was to include school board representation; elementary, middle, and high school teachers; principals; the superintendent; central office representation; administrators conducting evaluations; a data coordinator; parents; and others as determined by the district (Teach NJ, 2012). The DEAC at this research site was made up of sixteen teachers, four building principals, four assistant principals, five instructional supervisors (who teach two periods per day, and supervise either math or language arts the rest of the day), one athletic director, the superintendent, assistant superintendent, director of curriculum, and two board members. All of the teachers listed in Figure 1.4 served on their building level PLCs. Those teachers and administrators highlighted in yellow served as study participants in this research. The teacher PLC members’ were responsible for learning the model and leading the learning of the model using a turn-key training format to their teacher colleagues, during each of the three scheduled in-service days throughout the 2013 to 2013 school year.

The primary study sample was recruited from among the following teachers: four certified teachers from the Pk-2 building (Elementary School #1), three teachers from the 3-5 building (Elementary School #2), four teachers from the 6-8 building (the Middle School), and five teachers from the 9-12 building (the High School). All of the teachers in the ten teacher sample were tenured, in good health, and middle income (socio-economic status). The age range of the study sample was 35-55; ten participants were 35-49 and three participants were 50 or older. My goal was to recruit at least two teachers from each school building. All seven PK – 5 teachers were women with exception of one male 2nd grade teacher. There was one man and one woman recruited from the Middle School PLC, and two women and one man recruited from the High School PLC. The male PLC member in the middle school PLC was non-white, while all other members of PLCs were white. I attempted to recruit teachers from each school building that
represent diversity in gender and teaching assignment. This was somewhat difficult as I only had one male to draw from in grades PK-5 and one non-white teacher in all of the PLCs. I attempted to recruit the male social studies teacher at the High School, but he was unable to be a part of my study.

It is noted that the teachers came from different grade levels and schools, and based on the school planning models as well as the organized monthly grade level meetings; K-5 teachers historically collaborated more frequently than middle and high school teachers. The Middle School and High School however, had and established schedule for grade level and department meetings, and met regularly during those times. The Middle School meetings represented the grade level and all content area teachers, whereas the High School meetings represented content specific teachers only. Individually, the teachers in the four study PLCs were recognized for using their intellectual and experiential resources (in the school and classroom) as well as working collaboratively with their peers. All teachers demonstrated a shared commitment to knowledge of good teaching, understanding their students, and engaging in collaboration with other teachers and administrators, and were considered teacher leaders in their buildings (Kennedy, et al., 2011). For example, these teachers were ongoing learners; several had master’s degrees, volunteered for committee work, and served in after school (homework club) programs during their time in the district. Based on these characteristics, this sample was biased to the degree that they were generally well respected, committed teachers, who took their responsibilities for educating students very seriously. However, given these characteristics, this population served to unpack their learning and leadership experiences in a reflective manner due to their strong commitment to their profession and the education community beyond their own
classroom. My observations of their PLC planning work, as well their in-service deliveries indicated this same level of dedication and professionalism working with PLC colleagues.

All of the teacher participants received three full days of professional development on the Marzano Causal Teacher Evaluation Model from *Learning Sciences*. As part of a PLC, this group of teachers (and administrators at three of the four buildings) spent many hours planning and discussing their delivery of the in-service training. I had the opportunity to observe these sessions. Teachers worked collaboratively to develop an in-service program that was informative, and relevant to their teacher colleagues, and attempted to answer emerging questions regarding the model and the state mandates. All of the building level PLCs organized a Power Point presentation and handouts for participants. The teacher PLC members were almost *over prepared* and quite anxious at the first session, much like a new teacher would be with her/his first class. According to the findings, PLC members perceived the anticipated professional development sessions as stressful as most had never taught their own colleagues. I reassured them, as did their administrators, that they had more information than anyone, and that the teachers would be receptive, knowing that this initiative was a mandate and tied to their personal evaluation the following school year. Hence, all staff would be given one year to learn the evaluation system prior to the strategies being formally observed by administration. The *Learning Sciences* training sessions ran all day, from 8:00 until 3:00 with a 45 minute lunch period. At the end of each training session feedback forms were completed by participants, collected, and shared with the PLCs. A copy of the feedback form is included in the appendix. The feedback forms asked teachers to rate the following on a five point scale from strongly agree; agree; no opinion; disagree; and strongly disagree on the following:

- The training had clearly defined goals for learning
o The content will prepare me to take action in my area of responsibility

o The learning activities and discussion deepened my knowledge of the content

o The facilitator was knowledgeable and could answer my questions

o The facilitator monitored the engagement level of the participants and modeled multiple engagement strategies

o The facilitator monitored the pace of the delivery to meet the needs of the group

There were also three open ended questions:

o What was most valuable for you as a participant?

o What suggestions do you have to help us improve future sessions of today’s training?

o What suggestions do you have for future professional development topics?

Professional development participant survey forms were collected by members of the PLC after each of the in-services. PLC members were required to make copies of the forms and send the originals to the district office. The data were used by PLC members to inform future training sessions. These data were also shared by the district with the DEAC and used for discussions with the PLC members before the second and third in-service trainings. The data from question one; which includes teaching colleagues written comments of “what was most valuable for you as a participant,” are weaved throughout the research findings. A table [1.7] that incorporates the survey results is also in the findings. This document’s data and the reflective observations that are included in the findings serve to triangulate (cross-check) the data and to inform the
phenomenon under study. In addition to the 10 teacher participants, three building level administrator participants were recruited and interviewed regarding their perceptions of the PLC members’ learning and leadership experiences. This sample included two male principals, one from Elementary School #1, and one from Elementary School #2, and one female Assistant Principal who served at the High School during the study. It was felt that these administrators had the most exposure to the PLC process. The High School Principal and Middle School Principal were not selected as part of the sample because they were both newly appointed in their positions, and as former Assistant Principals in charge of discipline, did not have the same level of exposure to the PLCs as those selected.

A recruitment letter (Appendix A) was emailed to all the teachers in the DEAC. The letter included a brief statement outlining the nature and purpose of the study (Seidman, 2006), my contact information, assurance of confidentiality, and a request to return my email within a week if the teachers were interested. Ten of the teachers indicated that they would be willing to participate in the study. Based on the range and variation in responsibilities and demographics, I selected those teachers highlighted in table 1.4. There was a third female teacher from Elementary School #2 who was interested in being a part of the study at first, but was unavailable when I came to interview the other two teachers. Interview appointments were set up with each teacher with the knowledge of their building administrator so that classroom coverage could be arranged. The teachers from Elementary School #1 and the Middle School came to my office in central administration which is a detached building within walking distance of Elementary School #1 for their first interview. This location was selected by the teachers who suggested that the central office would be a quieter, less distracting environment. When I conducted the second round of interviews with these teachers, at my advisor’s request, the interview took place in each
of the school’s main office conference rooms. While interviewing the teachers, I perceived them to be more relaxed in their school conference room than in my office in the central office. The first and second interviews with participants from Elementary School #2 and the High School took place in the main office conference room at Elementary School #2, and in the English and Science Department offices at the High School. All three administrators were interviewed in their personal offices.

Other selection criteria included a willingness to participate in two audio-recorded interviews. In April of 2014, I requested an IRB modification with Northeastern University which changed the Principal Investigator on my study from Dr. Elizabeth Mahler to Dr. Elisabeth Bennett. After coding the initial interview data my new advisor (Dr. Elisabeth Bennett) suggested that I re-interview my participants in order to get more specific examples of their learning and leadership experiences. I contacted my participants personally, advised them that my advisor had changed, and asked them if I could interview them a second time. I was prepared to ask them very specific questions to clarify and embellish their original transcripts. Excerpts from both sets of interview data are included in my findings.

As part of my interview procedure, I took approximately ten minutes before the first interview to walk the participants through the informed consent process (Appendix D). During the informed consent process of this study, I stated both verbally and in writing that participating in this study was completely voluntary and would in no way impact the evaluation of their professional performance. Each participant was given a signed copy of the informed consent form (including their signature and mine) before they left the interview. Participants were (twice) emailed copies of their interview transcripts and asked to make any changes within one week of their interview session. One teacher expressed her regret using “um” so many times.
One administrator expressed the need for her to answer the questions more directly. All participants were asked to review and comment on the categories and definitions in two separate executive summaries (via email) of my findings; one after the first set of data were coded, and once after the second set of data were coded. Two of my participants were personally interviewed a third time during “member checking” and offered additional insights regarding PLC members’ learning and leadership experiences. These comments have been included in my findings.

The data saturation point was reached during the second round of interviews. Saturation is defined as a point in the data collection process when no new information or themes emerge from the data (Creswell, 2009). It is understood that the generalizability of the research findings are limited to the school district being studied. It is also understood however, that the goal of qualitative research is not generalizability, but rather to capture and comprehend the unique experiences of individuals and their diverse perspectives (Maxwell, 2005). There were several other districts in the state of New Jersey implementing a teacher evaluation system in a similar manner, using PLCS and a turn-key strategy. It was anticipated that the outcomes of this research could provide data that inform the implementation of a new teacher evaluation system in other school districts.

**Relationship to Participants**

Maxwell (2005) writes that “the relationship you have with a participant in your study is a complex and changing entity” (p. 83). Further, that since the researcher is the instrument of the research; the relationships are the means by which the research gets completed (Maxwell). As a professional educator for the last twenty years, I pride myself on being able to build professional relationships with colleagues through active listening and collaborative decision making.
Though Director of Curriculum for the district, I did not directly supervise the teachers in the PLC sample, nor the supervisors in the secondary sample. Their principals’ reported to my office on matters concerning curriculum, instruction, professional development, testing, extended day programs, budgeting, staff assignments and evaluation. Most of my dealings with staff members in our district were through committee work in the areas of technology, curriculum, and professional development. I believe that I was perceived by staff as a support structure for them in getting what they need to be successful. However, it is noted that as a member of the central administrative team, I had a vision for the district which was communicated regularly at administrative meetings, school faculty meetings, and board meetings. That vision included following through on the state mandate. I also had direct access to the teachers’ and supervisors’ bosses and the superintendent, and therefore may have been perceived as part of the power structure in the district.

The building level PLCs, district and building level administrators came together at the central office to learn the Marzano model (from the Learning Sciences consultants) and then turn-key this information to colleagues in each of the four school buildings. After each of the trainings, the DEAC, including the building level PLCs, were brought together at the central office to debrief the training received from Learning Sciences prior to the PLC planning sessions. As a whole group, we discussed ideas for rolling out the training, and attempted to answer as many questions as possible. Teachers were given one to two days of planning time before presenting the training. This planning time occurred within one week of receiving their training from Learning Sciences. The purpose was to share their understanding of the material learned during the training, to develop a lesson plan for the in-service on the information to be delivered, to create Power Points, and to make copies (hand-outs) of the Marzano Learning Maps that
outline the domains. It is noted that many teachers took additional personal time both before and after school to complete this work. Building administrators in Elementary Schools #1 and #2, and the High School were present at the planning sessions. The Middle School Principal allowed his PLC members to plan on their own, then share their plans with him for feedback, prior to the delivery of the Marzano model to the whole staff. My role in the turn-key initiative was completely supportive. I stopped into each building to chat informally with the PLCs during their learning and planning sessions, making myself available to answer questions or provide feedback. I visited every school level PLC once during these planning sessions; assuming a non-evaluative role in this process.

Participants were assured that all communications with them, including any notes that I took during the interviews, would be kept confidential and securely locked in the board of education office. Teachers were told that they had the option to participate or not, and could withdraw freely at any time without repercussion. This was clearly explained to the participants at the time they signed the informed consent form. Teachers were thanked formally via email at the time their transcribed interviews were sent, and personally at later dates throughout the year.

Data Collection

In maintaining the qualitative approach to inquiry, participants engaged in two face-to-face semi-structured interviews. The first interview lasted approximately 40 minutes, and the second interview approximately 30 minutes. The second interviews were conducted in order to elicit more descriptive details and examples regarding learning and leadership in a PLC. For example, when asked to describe her experiences that allowed for the achievement or non-achievement of the purpose of the PLC Sally was a member of [in the first interview], she stated,
“it forced me to really learn the model and, um, all the elements.” In my follow-up question [in our second interview] I asked if she could tell me a little bit more about this experience,” Sally responded as follows:

> I am a hands on type learner, so just reading through something, doesn't always work for me, I felt that I really had to be able to collaborate with my peers to really talk about it, to dissect every single element, and talk about what it would look like within the classroom.

The follow up interviews added richer personal descriptions of the PLC members’ experiences.

The interview questions were open-ended and I provided guided questions/feedback which encouraged the participants to elaborate on the phenomenon details. Please refer to the interview guide (Appendix B) developed based on Butin (2010) and Merriam’s (2009) procedures for building qualitative questions. Interview questions were included for both teachers and administrators in Appendix B. Field notes were collected documenting all observable behaviors of study participants and the surrounding environment during the interview. For example, facial expressions, mannerisms, clothing, emotions, and gestures were recorded and documented. Anything worth noting in the surroundings (sounds, lighting, unexpected interruptions) during the interview process were also written down. For example during one of my interviews at the High School, there was a very loud, distracting heater that “clanked” during the interview. Also, one of the teacher participants came into my office in a rather nervous fashion making a point of showing me that she had spilled coffee down the front of her sweater that morning. We laughed about it together calling it “one of the hazards of the job.”

An audit trail which incorporated observation field notes; documented personal reflective memos (of what I saw, heard, and thought) after each interview was written and reviewed
throughout the data collection process (Lincoln & Guba). An audit trail is a series of notes
documenting the research process as it is happening, and may include: personal reflections,
questions, and decisions I make in response to issues confronted while collecting data (Merriam,
2009). The audit trail documented what I was thinking during the interview, questions that come
up in my mind, and how my thinking may have changed from the beginning to the end of the
interview. I was careful to observe my thoughts during the interview process. I did this in order
to be aware of any prejudices, or expectations that I might have based on my experiences in the
district. I also went back to my notes and reread them several times. On occasion after rethinking
my initial responses, I made notes in the margins to clarify my thoughts and understandings.

Interviews took place at a location convenient to participants. During the first interview,
half of the participants came to the central office, while half were met in a quiet office or
conference room in their buildings. All of my second interviews took place in one of the offices
within the school buildings. Class coverage was arranged by the building administrators so that
teachers could be released from class duties. Interviews were digitally audio-recorded using a
Sony IC Recorder and transcribed after each interview using an online program, the Transcribe
Team. This service charged $1 per minute and transcribed audio versions of communication
word for word. The Sony Recorder included a software program that allowed me to download
each interview onto my laptop computer. From my computer, I was able to email the sound file
to the Transcribe Team. All data were stored on a password protected computer in my office and
on a memory stick which I maintained in my personal brief case. The questions in the interviews
were based on personal/professional perceptions of what was happening in the school setting,
during the evaluation system implementation and were repeatedly reviewed and edited by myself
and my two advisors. Participants’ were told that their responses would be maintained with
complete confidentiality and anonymity, and that the goal of my research was to obtain honest, meaningful responses that were comprehensive enough, and “thick” enough to analyze (Butin, 2010). The participants eagerly answered my questions and expressed that the interview process was a very positive experience for them and that they enjoyed reflecting on their experiences.

Collecting information using multiple data sources or multiple data collection procedures is called triangulation (Fraenkel & Wallen, 2009; Maxwell, 2005). This strategy reduces the risk that conclusions will reflect only the systematic biases of a specific source or method, and allows the researcher to gain a broader and more secure understanding of the issues being explored (Maxwell, 2005). Two additional sources of data were collected that permitted the researcher a more thorough understanding of the interview data. The first was participant feedback forms from each of the three in-service trainings. The focus regarding these data was on understanding the meaning of responses to the open ended question, “what was most valuable to you as a participant?” The second source of data was reflective observations of PLC members working within their PLCs, and delivering the in-service. While coding the interview data and examining field notes, recollections of observations of PLC members working together preparing for the training and delivering the training to teaching colleagues were recorded and later added to the findings.

**Data Analysis**

Data, in the form of transcribed interviews, field notes, and reflective memos were analyzed both manually and by using HyperResearch, a cross platform qualitative analysis software program distributed by Researchware, Inc. Using a general inductive approach following that developed by Merriam (2009), and Thomas (2006), this approach offers a
systematic set of procedures for analyzing qualitative data that can produce reliable and valid findings. The primary mode of analysis in this study was the development of categories (or themes) from the raw data using a totally inductive thought process. The researcher moved from an inductive approach very slowly, to a deductive process where the researcher at the point of saturation, “tested” the tentative themes against the data (Merriam). These themes emerged directly from the research questions, and the conceptual framework that guided this study.

In qualitative research, a process called data reduction continues over the course of the study (Kolb, 2012). Data reduction involves selection, simplification, abstraction and transformation of the raw data, and is a form of analysis that can be used to combine components of information into categories (Kolb, 2012; Miles & Huberman, 1994). Coding is the process of analyzing data (Merriam, 2009; Strauss & Corbin, 2008). Coding involves three levels of analyses: open coding, axial coding, and selective coding, to gather a complete picture of the data obtained (Strauss & Corbin, 2008). During open coding, the researcher repeatedly read through each transcript highlighting key words and phrases that answered the research questions. I continuously asked myself questions about the expressed meaning of the words. Because the meaning was at times unclear [to me and my advisor], follow-up interviews were initiated to provide clarification and examples. For example, in the first interview, Adam referred to “they (the PLC), are sitting on the fence and they can see the grass from both sides of the fence,” regarding the purpose of the PLC. When asked to clarify what this meant, in the second interview, Adam responded, “Being a part of a PLC, you’re the facilitator and the distributor of the information, but also you’ll be the receiver of the information.” This second response helped me to better understand the phenomenon of both learning and teaching at the same time.
The next step in my data analyses procedure was axial coding where by data were combined in new ways producing connections between codes. The main emphasis of axial coding is utilizing the inductive and deductive thinking processes to make comparisons and relate subcategories to main categories (Strauss & Corbin, 2008). For example, phrases such as “In my classroom, personally, I tried this,” and “I think more student discussion is a big thing,” would be collapsed into the main category of “Evaluating New Methods of Instruction.” This main category later became a property of the theme, “Transitioning Knowledge into Practice.” Additionally, phrases such as “different perspectives,” “differing concerns,” and “relied on each other’s expertise,” would be collapsed into the property, “Negotiating the meaning of the model.”

The process of combining and collapsing codes reflected both the frequency of times that the phrases were stated by participants, as well as the specific examples and details that were shared by each participant. For example, Adam mentioned the term “trust factor” in his first interview five times, Elmer mentioned the term “shared leadership” six times in his interview, Caitlin mentioned the phrase “feeling overwhelmed” three times in her interview. These phrases would later be rolled up into categories and defined as part of data analyses. The categories and their definitions were fluid during the process of indentifying interview excerpts that supported them, up until the final writing of chapter four, findings.

Finally, selective coding is the process of identifying and choosing the core categories and properties, connecting them to other categories, and validating those relationships as well as those differences (Strauss & Corbin, 2008). Selective coding seeks a more deliberate agenda of sampling to test and integrate categorical findings until the point of data saturation (Strauss & Corbin). Saturation is the point when the data collected becomes redundant, and ensures that adequate information has been gathered to accurately reflect the perspectives of the study’s
participants (Kolb, 2012). This final process produced eight themes and three properties associated with those themes, their definitions, and supporting quotations from participants.

**Details of the Coding Process**

Transcripts were downloaded (using pseudonyms) one by one into the HyperResearch software program and coded immediately as they were completed. This allowed the researcher to set up an individual ‘case’ for each participant. A case represents each study participant who was identified using a pseudonym. Each participant (case) transcript then appeared on the screen allowing the researcher to code (open code, or first-cycle code (Saldana, 2013) the transcript line by line. Each code was extracted and described by the researcher and appeared directly alongside the text with a shadow component that encompassed the text that defined the code. Clicking on the code automatically highlighted the corresponding text. The codes were saved electronically in a separate field for each case, as well as an accumulating code field for all transcripts. Highlighting a code in any of the three software fields brought me directly to the transcript text. Codes such as “working through it,” “learning together,” and “learning from colleagues,” would later be combined under the theme, “Transitioning Knowledge into Personal Practice” This first cycle coding (Saldana, 2013) was done with every interview twice culminating in over 500 initial codes. I also used the reports component of the program and printed out frequency reports for each participant which showed the number of times each participant mentioned for example the word “trust,” “turn-key,” and “common purpose” These codes were later collapsed into the two themes that were identified in the first research question, PLC members’ descriptions of the purpose of the PLC. This allowed me to focus my analysis on the frequency of these repetitions and combine them under one or more themes.
My second-cycle coding procedure (Saldana, 2013) was done manually. At this point I went into every transcript and looked for words and phrases from each interview that answered each of my 13 interview questions, plus a final question that asked each participant if they had anything else they would like to share. Within each question, I extracted between 20 to 25 statements that directly answered my interview question as well as meaningful quotes that elucidated their response. These statements were typed up under each numbered question and categorized by research question. The document was originally a fourteen page single spaced bulleted document entitled “Excerpts from Interviews that answer the Interview Questions.”

This “Excerpts from Interviews (document)” through the process of axial coding, that is, combining, rewording, and in some cases eliminating codes, was reduced to eleven pages of text. Prior to moving on to the development of final themes, I read through all 500 codes categorizing and labeling them as “PLC purpose,” as “learning,” and as “leadership” by using three different color markers. I also identified the codes with a check-mark, as representing words that describe “change” or “distributed leadership,” to the left of each code, my conceptual frameworks. The units of the text were used to “construct categories that captured some recurring pattern that cut through the data” (Merriam, 2009, p. 181). Though the categories changed as more data were analyzed, eventually a tentative scheme of categories emerged. This analysis permitted me to make adjustments along the path of data collection to “test” emerging concepts, themes, and categories against subsequent data (Merriam, 2009). Data analysis was thus an inductive process which began with a unit of data (any meaningful word or phrase that answered the research question) and compared it to another unit of data, all while looking for common patterns across the data. After this work, and reviewing the code frequency reports, the “Excerpts (document)” was reduced to seven pages. It was at this point, through the process of selective coding, that I
began identifying my final categories and properties. My study ultimately ended up with eight categories and three properties that answered the three research questions.

My analysis of the data included multiple readings and interpretations and though the findings were guided by the research questions; the actual findings emerged directly from the analysis of the data and not a set of pre-determined expectations (Thomas, 2006). Data analysis thus was an inductive process which began with a unit of data (any meaningful word or phrase) and was compared to another unit of data, all while looking for common patterns across the data. These patterns were given names, or codes, and were adjusted as the analysis proceeded (Merriam, 2009).

Substantive categories were developed using descriptive and in vivo coding. In contrast to substantive categories, organizational categories are broad areas that are established prior to interviews or observation (Maxwell). This distinction is made to highlight that inductive analyses do not test hypotheses or theories (Merriam, 2002; Corbin & Strauss, 2008). Descriptive coding is when a code is created to describe what is found in the data (Maxwell, 2005); in vivo coding is a process in which the exact words of the participants are used to create category names (Creswell, 2007). After repeated analysis of the categories, they were ultimately collapsed into eight final categories. Creswell (2007) affirms that categories should drill down to five or six (from 25-30), that will be used in the end to write the narrative. The presentation of the findings in Chapter 4 is a description of the most important categories identified, as well as a detailed account of the perspectives of the participants (Thomas, 2006).

Grounded theory, a qualitative methodology, was developed by Glaser and Strauss (1967) who believed that theory could emerge through qualitative data analysis. A strategy in grounded
theory research that was employed in this general inductive approach was the use of the constant comparative method. The constant comparative method is used to develop concepts from the data by coding and analyzing at the same time (Taylor & Bogdan, 1998). Constant comparison is the process in which segments of data are compared to identify patterns, data are then grouped together based on similarities or differences, and then becomes a category (Merriam, 2009). I employed the strategy of making constant comparisons in analyzing the data. This means that each time I chose a segment of text and coded it; I evaluated it relative to every other segments of text I had coded in the same way (Online QDA, 2012). Transcripts were coded after each interview session and the constant comparison method ensued throughout the data analysis process. This facilitated combining similar codes into more overarching categories, for example, the codes “frustration,” venting,” and “open communication” were combined and later collapsed into the theme, “Providing an Open Forum within a Safe Environment.” Relevant quotes were then selected that supported the main idea of a specific category. The final selective categories captured the critical features identified in the data, both answering and embellishing my research questions. I included a comprehensive definition of each category, or thick description in the code book that I developed. A thick description includes significant details regarding the context and findings of the study (Creswell, 2007; Merriam, 2009). These categories/themes became the major headings used to organize the narrative of my findings (Creswell, 2007). Participants’ quotations were drawn from the original data and were included under each theme or property in Chapter Four, Findings.

The final narrative of my findings included extensive member checking throughout all phases of both the data collection process and the release of the final executive summaries. Member checks involved opportunities for participants to comment on the categories and
interpretations made (Thomas, 2006) in my executive summary. Maxwell (2005) affirms that member checking is the most important tool for eliminating misinterpretations of meaning, and views it as a way to identify researcher biases. After the first and second interviews, transcripts were emailed to the participants, as well as the executive summaries which included the final categories for the study. The executive summary changed after the second set of interviews. The member checking process allowed me to solicit feedback from the participants regarding the data and conclusions to assure that I had accurately captured their perceptions. For example, Hanna affirmed in an email: “I just read over the results of your interviews and it sounds like the points that I know my group discussed and what I remember as key points during our group meetings.” Tom asserted in our face to face member checking session that “the PLC members were anxious regarding the unknown and changing themselves (their own practices), and this was very stressful.” This comment regarding PLC members’ learning anxiety gave me a better understanding of the data. I looked closer at the stress PLC members’ endured learning the model, and modifying their own personal practices. Previously I thought that the stress came primarily from the planning and teaching phase of the turn-key. Paul in my face to face member checking session also emphasized the stress factor iterating that “the turn-key strategies were going to be evaluated and would affect employment, thus, PLC members took it (the implementation) to heart and felt responsible (for understanding the model completely).” Paul also affirmed that “negotiating the meaning of the model was relevant as the teachers had differing assignments; basic skills, pre-kindergarten, In-class support, special education, and art, and lessons needed to built from top to bottom using the new model.” These comments helped to clarify the perceived importance of the turn-key, and the stress that the PLC members’ endured learning and leading the learning of the Marzano model.
Survey results focusing on the open-ended question, “what was most valuable to you as a participant from the first in-service day, October 5, 2012, and the [172] responses were analyzed for the teaching colleague participants from each school. It was decided that the first in-service day feedback forms were most informative as this was the initial time they had received training from peer colleagues and thus their responses would be genuine. Individual comments from each survey were extracted; then using open and axial coding procedures, substantive codes emerged. These findings were placed in a table format that includes the code descriptions, number of responses in each code, and the percentage of total responses. Excerpts from the feedback forms support the categorical findings, and are weaved throughout the findings. As I was coding the interview data, recollections came to me as participants were describing their work in the PLC. I recorded these reflective observations in my field notes and later inserted them into the findings.

Finally, I employed a peer reviewer; someone (a person with a terminal degree in my office) who coded two of my transcripts so that we could compare alignment. The peer coder and I analyzed the “Excerpts document” together. We discussed reoccurring themes and identified powerful quotes that supported the research questions. Certain codes were revised or emphasized based on this feedback information. My final categories and properties were reviewed and edited over a period of seven months by Dr. Bennett and myself during our phone meetings.

Pilot Interview

Prior to data collection, I conducted a pilot interview with an English Supervisor from the High School. I explained what the three warm-up questions were and then did a complete dry run of the interview process using the interview guide. I also collected field notes on observable facts during the interview, as well as documented my thinking and questions (audit trail). The purpose
of this pilot was to get someone else’s perspective regarding the wording of the questions for
directness and comprehensibility. It also allowed me the opportunity to practice with the digital audio recorder. After completing the interview, the Supervisor suggested that I change the wording of my third question in the warm-up to “How do you handle change.” This question replaced my original question which was “As you know, you are being interviewed because you were a member of a building level PLC; please tell me what you think the purpose of the PLC was?” Her suggested question worked very well and eliminated the redundancy of the second question in my interview guide which is: “Please describe you understanding of the purpose of the PLC you were in.” Her suggestion also seemed to elicit participants’ thinking about change early in the interview process. The final interview guide used in my study is in Appendix B.

**Data Storage and Destruction**

Digital files of audio recordings, transcripts, field notes, and any other data were stored in a lockable file cabinet and on a password protected computer. All identifiable data with the exception of the informed consent forms will be shredded or destroyed within one year of the study. Consent forms will be retained for three years after the completion of the study in a lockable file cabinet. Three years after completion of the research study, all copies of consent forms will be destroyed.

**Trustworthiness**

Lincoln and Guba (1985) explain four common types of trustworthiness in qualitative research: credibility (the research produces plausible findings and interpretations), transferability (readers are provided with enough information to determine the appropriateness of transferring findings to another context), dependability (the process of research used is well developed and
documented), and conformability (the data are appropriately linked to findings and interpretations). The “procedures most applicable to performing data analyses include conducting peer debriefings and stakeholder checks as part of establishing credibility and conducting a research audit (comparing the data with the research findings and interpretations) for dependability” (Thomas, 2006, p. 243). This researcher twice, used member checking to determine the accuracy of the qualitative findings which involved sharing the interview transcripts immediately after transcription and the final executive summaries with participants to determine the accuracy of the data collected and description reported (Creswell, 2009).

Trustworthiness is the qualitative response to checking for validity and reliability in qualitative research. It was my responsibility to take precautionary measures to confirm areas of validity in my research (Strauss & Corbin, 2008). There are two types of validity; internal and external. Internal validity addresses the accurateness of the data by incorporating the procedures of triangulation, member checks, peer review, and participant involvement (Creswell, 2007). External validity addresses the areas of reliability and generalization (Kolb, 2012). The focus of qualitative research is to form unique impressions and understandings of events and perceptions rather than to generalize findings (Creswell). Reliability refers to “item responses being consistent across constructs” (Creswell, 2009, p. 233), and is not necessarily applicable with regards to this research. I sought to gather varied perspectives regarding the research questions which would contribute to the rich description in the findings section of this dissertation.

Another threat to validity was the researcher herself (Kolb, 2012). For example, the bias of the researcher and reactivity which is the effect the researcher has on the setting or the study (Brickman & Rog, 2008). As a human instrument for data collection, researcher bias which
includes personal thoughts, feelings, and opinions presents a concern. One attempt to help minimize the effects of researcher bias on the study is reflexivity (Kolb). This means that I was continuously aware of reflecting, examining and exploring my relationship with the participants through all stages of the research process. For the purposes of documenting observed evidence, I maintained a reflective journal. I mentally observed my own personal thoughts and physical reactions during the interview process to be sure that I did not influence the responses of the participants. In addition, I continuously attempted to see myself through the eyes of the participants, and reinforce to them verbally that this exploration was completely confidential, much appreciated, and not evaluative in any way.

**Limitations**

It is understood that this qualitative research design was limited in scope to the specific research questions, the purposive sample, and the school district in this study. The results cannot be extrapolated to fit the same research questions in other school districts. According to Kolb (2012), the use of purposive sampling strategies may produce a biased sample. The participants’ had specific training on the model and had opportunities to collaborate on the delivery of the training. It is unlikely that any other school district has implemented this mandate in a similar way. This however represents an informative strength of this study for future practice and research. Based on the deep understandings that have been gained through data collection, analysis, writing, and publishing of the qualitative research report that may be shared with other school districts, the strengths of this research outweigh the limitations.
Protection of Human Subjects

A professional relationship existed with participants prior to the study. I have worked collegially with these teachers on curriculum, on professional development, and on the DEAC Committee. They were very eager to be a part of this research and exhibited complete trust regarding the process. Each signed an informed consent form that has been stored in a lockable file cabinet, and will remain there for three years after the completion of the study. The guidelines presented by the NIH Office of Extramural Research (2011) were followed; for example, participation was voluntary, participants could have withdrawn at any time, and all responses were free of researcher influence. The selection of the participants was based entirely on their ability to respond to the research phenomenon and answer the research questions.

Because this study is practice-based research, I anticipated the most minimal of risk to the participants. However, ethical challenges could have arisen and were considered. For example, teachers could have anticipated my using their ‘shared in confidence responses’ against them. One of the participants mentioned that he was not a very strong teacher of reading. I could have potentially notified the building principal regarding this perceived weakness and asked him to observe this teacher during his guided reading time. Instead, I asked the participant what he could do to improve his practice. He suggested observing some of the other teachers on his team, and collaborating with them regarding strategies and assessments. Participants were repeatedly assured that their responses were completely confidential. They were asked to review an executive summary of the findings twice, to ensure I had correctly interpreted their responses.

During each of the interviews I explained the purpose of my research and the overarching research questions. I wanted the participants to feel relaxed as well as excited about their
contributions. I also expressed my appreciation for their participation several times, before the interview, after, and in my email correspondence. I articulated gratitude at one of our DEAC meetings for those who contributed to, and were a part of my research. I believe that as a result of my interviews, my relationship with these teacher participants is more intimate, and our mutual respect for one another has grown.

As a director of curriculum, I foresaw minimal threats to the validity of my inquiry as a result of my relationship to this study and the problem of practice. My gain from this study was a deeper understanding of the data relative to the research questions; and the anticipation that this data may contribute to future building and district wide professional development initiatives. It may also serve to inform other teacher evaluation implementation initiatives in school districts nation-wide. In addition to informing current and future initiatives, my personal achievement was eventual degree conferral as a result of the completion of my doctoral thesis. It was however my obligation to focus on the well being of all participants and this was of utmost concern to me during the course of this study.
CHAPTER FOUR: FINDINGS

Using a general inductive methodology, the purpose of this study was to explore teachers’ experiences learning and leading change in a professional learning community tasked with planning and implementing a new teacher evaluation system in a small mid-Atlantic school district. The three research questions informing this study were:

1. How do PLC members’ describe the purpose of a PLC tasked with implementing a new teacher evaluation system?
2. How do PLC members’ describe their experience of learning through the process of collective inquiry?
3. How do PLC members’ describe their experience as leaders in this change effort?

This chapter begins with an introduction to the thirteen study participants; ten primary teacher participants whose responses are the focus of this study, and three secondary building administrators whose responses served to triangulate the teacher data. The presentation of the research findings will follow. Within the research findings, teaching strategies that were referred to by participants are italicized. All thirteen of the participants are employed by the Middle Township School District located in Cape May Court House, New Jersey. Throughout this chapter, the research sites are referred to as “Elementary School #1,” “Elementary School #2,” “the Middle School,” “the High School,” and “the District.”

Study Participants

Data for this study were collected via two sets of thirteen in-depth interviews with participants who are all currently employed by the District, which are listed in the order in which the interviews took place. The first interviews took place between November 2013 and January 2014. The second interviews were conducted in May of 2014. Ten of the participants were
teachers, and three of the participants were building level administrators. Survey data and
reflective observations are included within the findings, also.

The following participant descriptions have been arranged by pseudonym in Table 1.5.
The ten teacher participants are listed first, in alphabetical order, and the three administrators are
listed together at the bottom of the table. Table 1.5 presents a visual representation of key
demographic information such as gender, number of years teaching, number of years as an
administrator, age, ethnicity, and grade level/subject area taught.

Table 1.5

Participants’ Key Demographics

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Number of Years as Teacher or Administrator</th>
<th>Age</th>
<th>Ethnicity</th>
<th>Grade/Subject</th>
</tr>
</thead>
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<tr>
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<td>24</td>
<td>35-49</td>
<td>W</td>
<td>12/English</td>
</tr>
<tr>
<td>Bob</td>
<td>M</td>
<td>9</td>
<td>35-49</td>
<td>W</td>
<td>11/Science</td>
</tr>
<tr>
<td>Caitlin</td>
<td>F</td>
<td>13</td>
<td>35-49</td>
<td>W</td>
<td>8/Math</td>
</tr>
<tr>
<td>Doug</td>
<td>M</td>
<td>21</td>
<td>35-49</td>
<td>B</td>
<td>6/Math</td>
</tr>
<tr>
<td>Elmer</td>
<td>M</td>
<td>12</td>
<td>35-49</td>
<td>W</td>
<td>2nd Grade</td>
</tr>
<tr>
<td>Hanna</td>
<td>F</td>
<td>17</td>
<td>35-49</td>
<td>W</td>
<td>4th Grade</td>
</tr>
<tr>
<td>Janice</td>
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<td>13</td>
<td>35-49</td>
<td>W</td>
<td>3rd Grade</td>
</tr>
<tr>
<td>Mary</td>
<td>F</td>
<td>16</td>
<td>35-49</td>
<td>W</td>
<td>9-12/ Music</td>
</tr>
<tr>
<td>Nancy</td>
<td>F</td>
<td>25</td>
<td>35-49</td>
<td>W</td>
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</tr>
<tr>
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<td>15</td>
<td>20-34</td>
<td>W</td>
<td>Kindergarten</td>
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<tr>
<td>Lynn</td>
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<td>W</td>
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<td>20-34</td>
<td>W</td>
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</tr>
<tr>
<td>Tom</td>
<td>M</td>
<td>10</td>
<td>35-49</td>
<td>W</td>
<td>Principal Elementary School #2</td>
</tr>
</tbody>
</table>
First Interview: Ann

The first interviewee for this study was Ann, a white female, close to fifty who teaches twelfth grade English at the High School. The interview took place in the English Department office at the High School. When asked how she best learns, she explained that she asks questions to clarify information and enjoys working collaboratively with others. Regarding the idea of handling change, Ann stated that initially she was very overwhelmed learning the new evaluation system, “It was so much, so fast, and I wanted to be an expert,” she said. She felt that she was personally invested, that there was trust within the team, however she stated, “I think the only down side of it was the time constraints, that it made it very difficult, to take information, process it, put it back together and teach it within such a short amount of time, while still doing the rest of our job.” Ann was very concerned with having the correct information to convey to staff during the in-services, and she felt that this (the turn-key initiative) was an enormous responsibility in addition to her teaching and supervisory duties.

Second Interview: Bob

Bob is a white science teacher at the High School, who pioneered the Environmental Science curriculum: a relatively new course offered to tenth and eleventh grade students. Bob was focused and took time answering the questions. The interview was conducted in a small office in the high school with a loud and somewhat distracting heater. The phone rang once, but he did not answer it. He spoke to the notion of change, and how the implementation of a new evaluation system was perceived by the teachers in the High School as a major change phenomenon. As a member of the building level PLC, he explained that the process “was a part of us,” indicating the ownership that took place by the end of the year. Bob also spoke to the idea of PLCs providing the opportunity for an analytical approach to learning and to the idea of
waiting to hear others’ perspectives. He emphasized the importance of “building consensus through shared decision-making.” Bob is a well respected, dedicated science teacher who has his Masters degree in Educational Leadership. He has been in the District nine years.

Third Interview: Caitlin

Caitlin is a white, eighth grade math teacher at the Middle School. She explained that as a teacher, she likes to try new things, to integrate technology in her lessons, to use You-tube videos, and to make her content relevant to students. She enjoys getting the students up and moving around, infusing fun and singing into her lessons. Caitlin explained that she learns by doing: hands-on, and she has an open-mind regarding change. She felt that the process of learning the Marzano model made her a better teacher and that studying the domains and elements made her reflect on her teaching more. However, she did experience anxiety during the process and said,

It (learning the model) became more comfortable as time went on because at the beginning … there was so much, that I know when we were trying to plan on how to present the information to the staff we were so overwhelmed, so overwhelmed because we didn't know what was important, what wasn't important, because it was so new to everybody and unfortunately, no one really had an answer, because no one really knew what we were doing or where to go, but by the end … (we) were more comfortable.

Caitlin has been teaching in the district for thirteen years and expressed her appreciation for being a part of the PLC process.

Fourth Interview: Doug

Doug is a sixth grade, black, male math teacher at the Middle School who has been teaching twenty-one years and also serves as the sixth grade team leader. When asked to respond to who he is as a teacher, Doug explained that he is a “motivated (teacher), dedicated to students,
administration, co-workers, and the community.” In fact, Doug is very involved in the greater community, overseeing a food warehouse operated by a local church, which provides food to needy families. He explained that he learns best by doing, by engaging in the process. Regarding change, he stated that he has volunteered to use technology in the classroom and to be exposed “head-on.” His attitude was positive; his demeanor was animated. He appeared eager to be a part of this interview and to reflect on his experiences. He felt the PLC process opened him up to being a resource for other teachers in the building beyond his sixth grade team. Doug repeatedly emphasized the importance of “the trust factor” within the PLC and that this new evaluation system is “affecting all of us.” Doug, also, repeatedly stated the idea of “sharing and exchanging information” and the value of “effective communication.” Doug spoke to the “power of working together,” and felt very passionate about being a PLC member in this implementation project.

*Fifth Interview: Elmer*

Elmer is a white, second grade teacher who has been teaching for twelve years. He has worked at Elementary School #1 and is now in Elementary School #2. He was emphatic in his responses and appeared very comfortable answering the interview questions. Elmer has his Principal Certificate and oversees a district Title 1 afterschool program. He explained that he loves his job, feels that it is a different experience every day, takes pride in what he does, and feels that he is shaping the future by teaching students. Elmer stated that he is a visual learner and wants to be shown how to do things. He feels that “change is okay, but not just for the sake of change; things need to stay the same in order to reach mastery.” Elmer has interviewed for several administrative positions in the district but has not yet been successful in attaining one.
Sixth Interview: Hanna

Hanna is a white fourth grade teacher who has been teaching for seventeen years. She spoke in a very sincere manner regarding her experiences and used animated hand gestures, eye contact, and strong voice inflection during the interview. As a teacher, Hanna explained that she is both structured and creative. She spoke to the impact of her words on students and parents, and she expressed the importance of respect, kindness, and support when communicating with students and their families. As a learner, she learns through multiple modalities, talking about it, acting it out, and singing. She feels that change is a good thing and “if you can’t adapt, you will be left behind.” She explained that this PLC collaboration and training created a new foundation for her and the other teachers, and it brought everyone closer together in Elementary School #2.

Hanna, also, added that she had improved her questioning techniques, her personal reflection on practice, and she noted how important it is to know the learning styles of students. Overall, from Hanna’s responses, there was a sense that this experience created more open communication in the school.

Seventh Interview: Janice

Janice is a white third grade teacher at Elementary #2 who has been teaching for thirteen years. She also serves as the Literacy Coach in the building and receives a small stipend to assist teachers with planning and delivering their curriculum. Additionally, she assists the principal in facilitating grade-level meetings that focus on best-practices, the latest research in education, and data analyses of teacher and student performance. Janice expressed that she loves her job and always is eager to learn and grow. With regards to her experience working in the PLC, she said,

It was very positive. It was invigorating, actually. I loved having the opportunity to step outside my comfort zone and have more of an impact than just in my own classroom,
being able to branch out, and professionally challenge myself like that was very, very amazing. I mean, I really enjoyed it; I would do it again in a heartbeat.

Janice stated that working in a PLC “had a profound impact, I think, on all of us.” Janice also explained that she had become much more data driven regarding student achievement, was trying new strategies in the classroom, and she stated that the process had brought teachers together to collaborate more freely and spontaneously.

_Eighth Interview: Lynn_

Lynn is a white Assistant Principal in the District who is responsible for sharing administrative time between Elementary School #1 and Elementary School #2. During the 2012-2013 school year, she served as an Assistant Principal at the High School and, also, worked in the High School PLC. Lynn has been an administrator in the District for ten years. She has interviewed for principal positions at three of the schools over the past few years and has yet to attain this position in the District. She was selected as a study participant because she was actively involved in the turn-key initiative while at the High School. In addition, her responses were used to triangulate the data. Lynn felt that there were teachers who didn’t really buy into the PLC process, did not feel free to collaborate, and thus true implementation of change using PLCs did not occur at the High School. She said, “So I think there was more resistance at the High School level than I had hoped for, but I think sometimes even the leaders of the PLC's were somewhat resistant.”

Lynn had the opportunity to visit the classrooms during the training and perceived the attitudes of the teachers as “oh, here’s yet another thing,” and “this, too, shall pass.” Her responses to the interview questions were dissimilar to the responses of the other High School PLC member study participants.
Ninth Interview: Mary

Mary is a white, ninth to twelfth grade Music Teacher at the High School. She has been in the District for sixteen years and also serves as the Choir Director. Mary came into teaching later in life and reported she has “real-life” experience. She explained that “she loves watching kids grow into both consumers and performers of music.” Mary learns best in a group with other teachers and enjoys hearing others’ perspectives. She feels that change is inevitable and that “adapting to change is ‘key’.” Mary reportedly felt the PLC group was great providing clarity on the Marzano Model and she emphasized “being in it together.” When asked if the PLC achieved the purpose for which it was intended, she said,

I think we did. I was a little apprehensive going into the trainings with the staff just because I know that it was a huge shift in thinking, and it was a lot of material to take in. And I think the way we did it really made it seem like we were all in it together by providing staff-to-staff training, and I thought that the teachers were incredibly receptive to it. I was really relieved because I was very, very nervous.

Mary stated she felt that the administrator/teacher pairings was a good idea when delivering the in-service and that using the teachers as the primary presenters was very effective. She felt this contributed to the teachers becoming more comfortable with the Marzano model (hearing the information from one of their colleagues) during each of the three in-service days.

Tenth Interview: Nancy

Nancy is a white, first grade teacher at Elementary School #1. She has been teaching for twenty-five years. Nancy is married to a Middle School teacher in the District. She says she is energetic, funny, and sometimes silly with her students, as a teacher. Nancy, also, explained that
she doesn’t do change very well and that she likes to ease into it slowly. She described several times her nervousness with the process. She said,

And the first time (presenting), they were nervous that we would all jump in other people's spots because we all had different ideas……. Everybody was feeling that they were so nervous about it and they didn't know as much and how, if we just learned it for one day, and now we're presenting it to everyone.

But later in the interview, she said,

But then by the end (final in-service), everybody had more of a handle on it, so we felt more comfortable; but also we knew we knew it. Everybody presented well the first two times, so we didn’t think somebody was going to come in on us, (meaning one of the other PLC members or the administrator would clarify their delivery) because we knew we could do it.

Nancy expressed that she is considered a leader in her building and that their PLC became a liaison between the teachers and the principal. She described the process of implementing the Marzano model in her school building as a “monumental shift” in thinking and behavior.

Eleventh Interview: Paul

Paul is a white male and the Principal at Elementary School #1. His responses served to triangulate the teacher data. He has been an administrator for eight years, and at the time of the turn-key was in his first full year as the principal at this location. He previously served as Assistant Principal at the Middle School. Paul stated that he prides himself on being a change agent and that the PLC assisted him with his vision. He expressed that the PLCs allowed him the opportunity to create a situation which built teacher ownership and which engaged key stakeholders in the process. With regards to PLC members becoming leaders of change, he said,
Absolutely, because it's different for me, I can say it all I want, I'm their boss, I'm the one, I'm judge and jury here, I do the evaluation, but to hear it from their peers, it just created a different comfort level… those (PLC members) are some of my most respected teachers in the building and some that can really take a hard line on change, so to have them that involved in the process and to have them as kind of go-to people…

Paul felt that the PLC intervention impacted the organizational climate and the success of the students, he said,

This allowed me to make that change and because it was a state mandate, because it tied to their evaluation these were non-negotiable things, these are best-practices, these are research-based best-practices, these should be going on in every classroom, so it kind of gives you a little bit of muscle in a way because there is so much credibility to it, and there's so much accountability to it, so I was able to accomplish it quicker.

Having recently become the new building principal, the implementation of Marzano allowed Paul to focus very specifically on improving instruction, with the help of the PLC.

Twelfth Interview: Sally

Sally is a white kindergarten teacher at Elementary #1 with fifteen years experience. She described herself as being energetic, loves teaching, and comes from a family of teachers, “It’s in the blood,” she said laughing. She stated she learns best by doing, and is a visual, “hands - on” learner. In sharing some final thoughts about the PLC process, she said,

I think it was very positive that it was from within our school, I would do it again, even though it was a lot of blood, sweat, and tears, but I feel that overall I really learned so much more and I feel more comfortable even having people come in my room now, because I was forced to live it.
She explained that she brought humor to the process, and though nervous at first, the PLC members learned from each other, and became more comfortable with each other, and more confident with the material as time went on.

_Thirteenth Interview: Tom_

Tom, a white male, is Principal at Elementary School #2 and his responses served to triangulate the teacher data. He has been an administrator for ten years, and he previously worked as both a special education teacher and a supervisor at the High School. Tom is committed to challenging the status quo and is willing to jump in the trenches with his staff to learn and to support student achievement. When asked about the PLC achieving its purpose, he said,

No question in my mind. And I think that it's also been helpful, too, because we already implemented the PLC process prior. You know, we've done book clubs, I give them journal articles, we're constantly doing things like that, so they were familiar with that, they know that it's an open forum, where they can say negative things if they need to, if it was (for) the good of moving forward, does that make sense, if it is to benefit everyone, not just to complain, they knew they were able to do that and that happened in our dialog, you know, I was no longer the administrator, I was one of them. So we were able to talk about things that we liked, we didn't like, things that confused us, that we thought didn't make sense, but in doing so we opened it up to a lot more discussion.

As a building principal, Tom is very concerned with student achievement and feels the support of the principal, shared decision making, and trust will encourage teachers to try new methods.
FINDINGS

Table 1.6 presents a visual representation of the findings listed in order of the research questions. The three sections are: a/ PLC members’ descriptions of the purpose of a PLC tasked with implementing a new teacher evaluation system, b/ PLC members’ descriptions of their experience learning through the process of collective inquiry, and c/ PLC members’ descriptions of their experience as leaders in the change effort.

<table>
<thead>
<tr>
<th>Table 1.6</th>
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<tr>
<td><strong>Summary of Findings</strong></td>
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1. **How do PLC members describe the purpose of a PLC tasked with implementing a new teacher evaluation system?**

   - Turn-keying the Marzano Model
   - Providing an Open Forum within a Safe Environment

2. **How do PLC members describe their experience of learning through the process of collective inquiry?**

   - Transitioning Knowledge into Personal Practice
   - Negotiating the meaning of the model
   - Reflecting on current practices to determine fit with the Marzano Model
   - Evaluating new methods of instruction
   - Managing Stress
   - Translating the Model into Teaching Colleagues’ Practices

3. **How do PLC members describe their experience as leaders in this change effort?**

   - Sharing Governance
   - Becoming an Advocate for Change
   - Promoting Shared Values

A total of eight primary themes and three properties have been identified that answer these questions. The Findings section is organized by each research question. Corresponding themes and properties elucidated by interview excerpts are included under each research question.
PLC Members’ Descriptions of the Purpose of a PLC Tasked with Implementing a New Teacher Evaluation System

Two main themes were identified that capture PLC members’ descriptions of the purpose of a PLC tasked with implementing a new teacher evaluation system: a/ Turn-keying the Marzano Model, and b/ Providing an Open Forum within a Safe Environment. The following thematic sections will describe PLC members’ descriptions of the purpose of a PLC tasked with implementing a new teacher evaluation system. Select excerpts from interview transcripts, survey data, and reflective observations will be weaved throughout to help explain each theme.

Turn-keying the Marzano Model

The first theme identified, which captures PLC members’ descriptions of the purpose of a PLC tasked with implementing a new teacher evaluation system, is Turn-keying the Marzano Model. This study defines Turn-keying the Marzano Model as the goal of breaking down what PLC members’ learned about the Marzano Model through a train-the-trainer program (offered by Learning Sciences) into component parts within a community structure, in order to convey them to teaching colleagues. A pattern was evident among participants’ descriptions of the purpose of the PLC, of which they were a member, that the task assigned to them by the District, was to cooperatively learn the Marzano Model and to teach it to their colleagues over three scheduled in-service days during the 2012 - 2013 school year. Caitlin describes her perception of the purpose of a PLC:

[A] professional learning community would be a group of colleagues that all have the same goal, are working towards whatever that case may be, and learning at the same
time… how to, I guess, learn information and being able to relay information as well, and working in ways to best do that.

This idea of “learning how to learn information and being able to relay it to staff” required deep analysis and understanding of the content. The process for this deep analysis was collectively examining the model, as well as, the components in a disciplined, systematic way. For example, Bob affirms, “the purpose [of the PLC] from my perspective was to … break down the key components that are of most importance to our teachers.” The Feedback forms collected at the end of the first in-service from teaching colleagues indicated that when asked, “What was most valuable for you as a participant?” responses indicated, “the breakdown of each component for understanding,” and “I liked the breakdown of each element in the handouts.” Table 1.7 includes description of teaching colleagues’ responses at the end for the first in-service training.

Table 1.7 Survey Data: “What was most valuable to you as a participant?”

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<thead>
<tr>
<th>Description</th>
<th>No. # of Responses</th>
<th>Percent of Total</th>
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<tr>
<td>Admin Input</td>
<td>8</td>
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</tr>
<tr>
<td>Collaboration with Peers</td>
<td>32</td>
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</tr>
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<td>Delivery/Explanation</td>
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</tr>
<tr>
<td>Relieving Anxiety</td>
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<td>11.04%</td>
</tr>
<tr>
<td>Peers Teaching Peers</td>
<td>9</td>
<td>5.23%</td>
</tr>
<tr>
<td>Evaluation/Scales</td>
<td>37</td>
<td>21.51%</td>
</tr>
<tr>
<td>Examples, Strategies, Ideas</td>
<td>29</td>
<td>16.86%</td>
</tr>
<tr>
<td>Comparison to Learning Focused</td>
<td>3</td>
<td>1.74%</td>
</tr>
<tr>
<td>Change, New Direction</td>
<td>3</td>
<td>1.74%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2</td>
<td>1.16%</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>172</strong></td>
<td><strong>100%</strong></td>
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</table>
Table 1.7 data reveal that 17.44% of teaching colleagues felt that the delivery of the material was most valuable to them. They referred to terms such as “clarity, explanation, understanding, and breaking it down” as mentioned in this theme. When asked, what the purpose of her PLC was, Janice eagerly emphasized the importance of taking a focused, methodical approach to breaking down the information they had learned from the *Learning Sciences* consultants and committing themselves to the turn-key, “I felt like we really had to start small and say, “Okay, this is what it's going to look like, this is something that we are going to do together, we are going to embrace it.”” Janice’s PLC, which included three teachers, was extremely focused on learning the model and being able to impact student achievement. This is further elucidated by Tom, principal at Elementary School #2, explains enthusiastically, “we are all about student achievement,” emphasizing that the common purpose in his school’s PLC was to get results by improving teaching strategies and thus, student performance. Getting these results, Tom describes, put pressure on his building level PLC members to completely comprehend all components of the Marzano Model and to effectively deliver those components to his teaching staff.

A significant component of the turn-key permitted PLC members to embrace the content was this overarching sense of community. Participants’ descriptions of their purpose revealed the importance of “getting the conversation going within the support of a group structure [a PLC], whereby teachers are empowered to learn” as Caitlin describes. The concept of working toward a common goal, and a common purpose “within a community of your colleagues,” according to Sally, was iterated by all participants. For example, Sally affirms, “I feel it's [the purpose of a PLC] a community of your colleagues, working together to achieve a common goal. Lynn, the Assistant Principal, articulately explained the purpose of the PLC from behind her desk at
Elementary School #2. She affirms, “it was a collaborative effort to improve, to help inspire change…and to better the effectiveness of their [PLC members and teaching colleagues] instruction so kids are better.”

Findings indicate that the participants were clear on their role to actively work together to learn the Marzano domains and elements such that they could convey the model to their teaching colleagues in an efficient and understandable manner. For example, Bob explained that it was critical to understand the content and then be able to “turn-key that and relay that information to the staff in smaller group settings during our professional development days.” Here Bob is describing the High School environment during the in-service days where the training was facilitated by key PLC members within their subject area departments, or what he refers to as smaller group settings [English, Social Studies, Science, Math, etc.]. The district feedback forms reflect comments by a teaching colleague who stated, “Our facilitators were thorough and engaging, they worked hard to help us to grasp concepts that we were nervous about and struggling to understand.” At the High School, the building level administrators were also members of the PLC, who assisted the group with working through anticipated questions and answers with the model both within the PLC and when presenting the turn-key to teaching colleagues.

Mary, Doug, and Nancy affirmed that they were assigned the task to collectively learn the Marzano Model from the Learning Sciences facilitators [as a cooperative group of building level PLC members], and to put together a plan to help their teaching colleagues embrace the model with a sense of ease and self-assurance. Teaching their colleagues required PLC members to attain a level of learning that helped them feel informed and confident addressing their peers, and conveying the new model to them.
Ann, in the following passage, elucidates the importance of PLC members learning the information thoroughly in order to convey it to her teaching colleagues:

I think it [the purpose of the PLC] was to turn-key information that we were seeing on a smaller scale … so that we could take the information and share it with the rest of our team; so that we had a chance to absorb it first, to feel comfortable enough to share.

Ann describes the context for learning, which included a PLC composed of interdisciplinary colleagues who could view the information through the lens of their subject area expertise, “on a smaller” or more specific content based scale such that they could effectively plan their turn-key training. Feedback forms affirmed that PLC members conveyed the information to teaching colleagues using methods they understood. For example, “The content was presented clearly and effectively, and in a lively and reassuring manner,” and “I have a much clearer focus on what I need to do to prepare for the evaluation.” Feedback forms further affirmed that teaching colleagues “gained knowledge of what to expect and how the process works.”

Having observed the PLC members’ delivering the training during the in-service days, they appeared well prepared to deliver the Marzano Model. They had detailed lesson plans, guiding power point presentations, and all were poised to answer questions from their teaching colleagues. Their level of preparedness indicated that they had spent many hours contemplating the model as well as questions and reactions they might encounter from teaching colleagues.

Responses from the study participants indicate that they were unanimously clear on the purpose of their PLC. They were expected to completely comprehend all the domains and elements within the model and to effectively deliver this information to their teaching colleagues.
They embraced this challenge in a supportive community structure that facilitated the confidence necessary for them to convey the new model and its components to their teaching colleagues.

**Providing an Open Forum within a Safe Environment**

The second theme that captures PLC members’ descriptions of the purpose of a PLC tasked with implementing a new teacher evaluation system is “Providing an Open Forum within a Safe Environment”. This category is defined as allowing PLC members the opportunity to acknowledge their frustrations and questions regarding the Marzano model and evaluation rubric, and to address teaching colleagues’ potential resistance to change. It was necessary for PLC members to feel safe discussing what they knew and didn’t know about the Marzano Model strategies and the evaluation rubric. This lack of knowledge, along with the fact that they were expected to embrace the model, created feelings of frustration and anxiety that needed to be aired openly and safely. Additionally, anticipating teaching colleagues’ potential reactions and resistance to the model required open dialog in a place safely removed from everyday building interactions.

Noting the magnitude of this initiative to both the PLC members and the staff, Nancy nervously refers to the Marzano Model initiative as “a [potential] shock to the rest of the staff,” and describes the feelings that members of her PLC experienced when they came together for the first time after the *Learning Sciences* training session. She stated, “when we did our first meeting, everybody’s [PLC members] freaking out about how we are going to present this [the model].” Nancy, who appeared to be barely breathing, follows up with the anticipated feelings of her teaching colleagues with the new model, “everybody’s [teaching colleagues] going to have a freak-out, how can we get a handle on it, let’s look at the things that we already know that we do.” Here Nancy is referring to her teaching colleagues’ fear of the change and how the PLC can
manage it by emphasizing current practices consistent with the model. “Looking at things they already knew how to do,” gave PLC members a starting point in their learning and planning.

The PLCs spent many hours together without interruption away from their regular teaching duties to analyze every detail of the model. This time working together gave PLC members the opportunity to share their frustrations, and eventually, they began to reflect on their own teaching practices. The PLC conversations took place in the main office conference room at the High School, Elementary School #1, Elementary School #2, and in the band room at the Middle School. This environment permitted PLC members the opportunity to safely share ideas, to question information, and to vent their feelings with the Marzano Model strategies and evaluation rubric. After each of the Learning Sciences training sessions, PLC members had questions or needed clarification regarding what they had learned. This evaluation model was new to all staff in the District and represented a significant change in the way teachers were expected to teach, as well as how they would be evaluated. Bob explains “the learning model was a little bit intimidating, because you don’t know that much about the topic, and you were not sure how to answer particular questions that teachers might have.” Working together in private, allowed the PLC members to examine both the Marzano strategies and the Marzano evaluation rubric. For example, Elmer confidently describes the open dialog and venting of frustration that took place in his PLC:

The “open forum” allowed PLC members to talk about, what’s working, what’s not working and their frustration level… and we just started throwing things out, throwing them up on the board…to see what sticks, and anybody could just talk and discuss, vent and it was whatever we say in here stays in here.
Further on in the interview, Elmer qualifies his statement by saying, “it wasn't bashing teachers, it wasn't bashing students, it wasn't bashing administration, it was just let’s talk positively,” and the conversations actually focused on, “let's talk more about what's good, than what's bad, I think pretty much most of the conversations were on the up and up.” Elmer, using direct eye contact, explained that his PLC worked through their frustrations within the open forum, “we always ended with a positive and didn’t want anybody walking out muttering negatives to themselves.” He explained that the open forum permitted his PLC to vent without any administrator present. Thus, there was a sense of freedom to truly reflect on teaching practices.

The High School PLC conducted their work in the Main Office conference room permitting them to openly question the model’s domains and elements. Bob, a member of this PLC, thought very carefully before answering each interview question. He used hand gestures and appeared animated while speaking. In the following passage, Bob illustrates the opportunity to question the new initiative, and describes not feeling alone with his questions within the safe environment of the High School conference room:

I feel like one of the successful parts of it [the PLC] was being able to ask those questions and realizing that in that PLC I was not alone, and that other people had similar questions, and sometimes when you’re in a group like that, other people have questions you didn’t think of.

Bob’s words emphasize a feeling of safety within the PLC that permitted openness, honesty, and a willingness to share. His words also demonstrate a transition in the conversation, overcoming self-image to make way for the admission of uncertainty and vulnerability. An example is “other people have questions you didn’t think of.” Later in the interview, Bob elucidates moving from a sense of uncertainty to solution when he affirms, “Okay we have this model, now how do we
crunch the numbers, how do we weigh the different things, the particulars were challenging because what happened is we became the experts as members of the committee.” This expectation of themselves to become experts on the model was iterated by all the study participants. The open forum within the safety of the PLC permitted them to anticipate questions their teaching colleagues might have, as well as to answer their own questions regarding the mechanics of the model. It offered an opportunity to share thoughts and feelings with the assigned task. Lynn, a building administrator at the High School during the turn-key year, affirms the sharing that took place within the PLC, “Everyone felt comfortable and safe enough [within the PLC] to have an input, to have on opinion, and to be part of the whole end product that was going to be rolled out.” These quotes elucidate PLC members’ descriptions of their experiences questioning the model, and expressing their frustration and uncertainty with both understanding the model and being able to explain it to their teaching colleagues. They also demonstrate a gradual movement from feelings of frustration to consensual solutions, as they reflected on their practices.

After each of the Learning Sciences trainings, PLC members were observed for 20 to 30 minutes in their groups analyzing what they had learned and planning for the in-service trainings. PLC members appeared to be seriously working on the assigned task. They were seated around a conference table with many of the Marzano resources available to them; the text, their notes from the Learning Sciences training, and the Learning Map. Several members had lap tops in front of them, working on a power point presentation. PLC members eagerly questioned the components of the model and shared their interpretations of the model domains and elements. These discussions exhibited powerful critical thinking going on, and PLC members’ focus on the task was unwavering.
The evaluation rubric component of the Marzano Model was an unknown phenomenon for the PLC members. They attempted to examine what they needed to know and share with their teaching colleagues in anticipation of their possible resistance to its implementation. The District had been using a skills checklist and brief comments section evaluation format for many years that included three rating categories: Meets Expectations, Satisfactory, and Needs Improvement, to evaluate teaching staff. The staff was comfortable with this simplified formant. The Marzano Model incorporated a different language of instruction and different rating categories [innovating, applying, developing, beginning, & not using]. This created a sense of uncertainty regarding the criteria for each rating, or what an evaluator would expect to see when observing a classroom teacher. This uncertainty encouraged PLC members to self reflect on their own teaching strategies; to examine how their method of teaching was similar or different to the model protocol. It was during this self reflection that PLC members began to put their egos aside in recognition of some of the personal weaknesses they identified in themselves. For example, Caitlin, who sat very erect and focused during the interview states, “It [the model] does help reevaluate yourself as you reflect on what you’re doing in the classroom…[and I realized] that I needed to spice things up and start spending some extra time trying to revamp things, come up with different ideas that are more current.”

Other PLC members discussed how they might improve their ability to plan and deliver their lessons. Bob affirms, “I think PLCs remind you that everybody learns differently and that everyone’s going to have a different reaction to the information so if you can visualize that ahead of time, I think it can help a teacher to…better plan for that.” Here Bob is thoughtfully reflecting on planning to meet the individual learning needs of his students. Doug using a strong, deep voice and formally dressed in a jacket and tie spoke emphatically regarding the importance of
ongoing communication with his sixth grade team colleagues regarding planning. Janice reflected on the importance of using student data to inform instruction and states, “I need to be onboard with where they are [students] now, where they are a month from now, okay, did they show progress or not, and if they haven't I really need to change what I'm doing.” Here Janice examines how she is best using student data to inform instruction. Sally, with her open and energetic demeanor suggested incorporating more [student] physical movement in her classroom to enhance learning. This movement is particularly important for maintaining the engagement of kindergarten students she explained. These discussions of how practices could be enhanced created honesty amongst the PLCs and receptivity to feedback from the administration.

Before feeling confident enough to launch the training, PLC members needed to know what an evaluator might be looking for during a formal evaluation session. This knowledge would serve to solidify their understanding of the rubric expectations and help them answer their teaching colleagues’ questions. For example, Caitlin affirms, “they’re [teaching strategies] all things we all do as teachers every day, but sometimes it's easy to overlook some things that maybe I guess an evaluator is looking for.” Caitlin later stated that being a part of the PLC refreshed her memory on strategies that she should be implementing in her every day practices.

In their quest to better understand the meaning of the new evaluation rubric, PLC members reached out to their building level administrators for guidance. They invited their administrators in to help them clarify the meaning of the rating scale and how it would work during the evaluation process. In anticipation of their teaching colleagues’ concerns, PLC members wanted to accurately present the information with the go-ahead of their administration. Mary who was casually yet colorfully dressed appeared very comfortable with herself answering
the interview questions. She elucidates the conversations that took place between the PLC members and the administration in attempting to understand the meaning of the evaluation rubric:

When we came back together from the trainings we were actually able to sort of interpret, so if there were things we didn't understand, like the use of innovating, and that has been an area we talked about many times, to be able to come together and get the administrators’ definition of it plus the teachers definition of.

There was considerable conversation about the evaluation rubric and what a teacher was expected to demonstrate in the classroom to receive a certain score, such as an applying or an innovating [the two highest scores on the scale]. In their analysis of the rubric, and with feedback from their principals, PLC members shared strategies based on their personal reflections of what they had learned, that could possibly improve their score. For example, Caitlin expresses, “I realized I do have to make more of an effort to check each individual student to make sure they are on task and understand the learning goal…to make more of an effort to hit those students who tend to easily fly under the radar.” Here Caitlin is referring to the Tracking Student Progress element of the model. Hanna states, “when they’re [the students] doing most of the talking and I’m just sort of guiding them along then I know it’s been a successful lesson.” In this quote Hanna is describing an aspect of the Marzano Model that requires students’ to discuss their learning with each other, and to monitor their understanding of the learning goal. Sally, a kindergarten teacher discusses posting the learning goal for the lesson and the student monitoring scale, “posting the questions for every [subject] area, coming up with a scale to assess the students' understanding 5 times a day, it's tough.” Sally’s reflection of the elements, Learning Goals and Scales, and Tracking Student Progress express the difficulty of using the model in a kindergarten class where every subject is taught every day. These quotes illustrate PLC members’ personal reflections and
the dialog that took place within the safe open environment. The dialog amongst themselves, and with their principals, focused on the “what, “why,” and “how” of the model. These conversations affirmed PLC members’ thoughts and feelings regarding their current practices and provided a sense of direction on what needed to change to be in alignment with the model’s evaluation rubric.

The findings in this theme provide evidence that PLC members achieved a level of comfort within the safe environment of the PLC to open up and share their potential weaknesses as teachers. PLC members questioned the meaning of the domains, reflected on their own teaching and evaluated their own practices based on the rubric. Janice affirms, “It [the PLC] made me reflect on my practice and improve it… I realized what I had been doing was not the best teaching.” The safe environment allowed PLC members to discuss their frustrations and gain a sense of their own personal level of proficiency using the strategies. Reaching out to building level administrators for their explanation of the evaluation rubric was necessary to establish self-assurance in how the rubric worked, and to affirm their understanding of it. This feedback from each other and their administration within the safe environment, gave PLC members the confidence needed to meet the anticipated resistance of their teaching colleagues. Feedback from teaching colleagues after the in-service demonstrate that 22% of responses felt learning the evaluation rubric and scales was valuable to them. Further, one teaching colleague affirmed, “Understanding the criteria for evaluation will make me focus more on monitoring and engagement.”

Section Summary

This section described two central themes that capture PLC members’ descriptions of the purpose of a PLC tasked with implementing a new teacher evaluation system: a/ Turn-keying the
Marzano Model, and b/ Providing an Open Forum Within a Safe Environment. Although these categories are listed separately and do not conceptually overlap, they are by no means disconnected. For example, in order for PLC members to break down the model components and convey them to staff colleagues, they needed to acknowledge their frustrations and to question the Marzano Model strategies and evaluation rubric in a safe environment. These two themes, as reflected in the findings, summarize PLC members’ descriptions of the purpose of their task during the 2012 - 2013 school year.

**PLC Members’ Descriptions of their Experiences of Learning through the Process of Collective Inquiry**

Three main themes were identified that capture PLC members’ descriptions of their experiences of learning through the process of collective inquiry: a/ Transitioning Knowledge into Personal Practice, b/, Managing Stress, and c/Translating the Model into Teaching Colleagues’ Practices. Three properties were identified that represent distinct practices of the category Transitioning Knowledge into Practice: Negotiating the meaning of the Marzano Model, Reflecting on current classroom practices to determine fit with the Marzano Model, and Evaluating new methods of instruction. The following thematic section will describe PLC members’ descriptions of their experiences of learning through the process of collective inquiry. Select excerpts from interview transcripts will be included in each section to help elucidate each theme and/or property.

**Transitioning Knowledge into Personal Practice**

The first theme identified that captures PLC members’ descriptions of their experience of learning through the process of collective inquiry is Transitioning Knowledge into Personal
Practice. This is defined as PLC members using the process of collective inquiry to develop shared meanings of the Marzano Model and the strategies in the model, and how they can be applied to PLC members’ personal instructional practice. Findings indicate that PLC members learned by sharing and questioning their understanding of the model, and built consensus on the meaning of the model by testing the practices out in their classrooms. They also learned through feedback from their building principals. Three properties were identified within this theme: Negotiating the meaning of the Marzano Model, Reflecting on current classroom practices to determine fit with the Marzano Model, and Evaluating new methods of instruction.

**Negotiating the meaning of the Marzano Model.** The first property for PLC Members’ Transitioning Knowledge into Personal Practice is Negotiating the meaning of the Marzano Model. This is defined as interdisciplinary PLC members creating consensus on the meaning of the Marzano Model by analyzing domains and component parts. The PLC members represented multiple subject areas and grade levels. For example, English, science, math, music; and preschool through twelfth grade. They were however, building level PLCs, so the consensus building that took place regarding the meaning of the model focused on the disciplines and grade levels within their individual school buildings, for example, Pre-school – second grade, third to fifth grade, sixth-eighth grade, and ninth through twelfth grade. PLC members “argued and debated” the meaning of the model according to Doug and Sally. Bob and Caitlin explained that this process of arguing and debating promoted an analytical approach to understanding the model from multiple perspectives. Mary explains the importance of working together during this [collective inquiry] process when she states that we needed to “make sure that we were all on the same page.” The idea of building consensus on key points was iterated by all participants.

Findings indicate that negotiating the meaning of the model required deep analysis of the domains
and component parts. For example, in order to learn, PLC members felt an obligation to understand all of the components of the model, and as Hanna describes, “It was sort of like being back in school, just that challenging, the questioning, and re-reading, re-reading, to really get what the meaning was…we felt a sense of urgency [to get it right].” This sense of urgency elucidates the purposeful, self-directed learning that took place within PLCs.

PLC members created consensus on the meaning of the model by sharing and listening to each others’ perspectives on the model. Doug repeatedly and emphatically mentioned the importance of communication during his interviews. He explained that the learning that took place was very “goal oriented” and that the PLC members began to “realize the importance of talking to other teachers [PLC members].” Sally describes the ‘give and take’ dialog that took place in her PLC, “So it's good to have that [dialog], oh, "I think it means this, well, no, I took it this way, you know, just to really explore all the elements and all the ideas that everybody on the staff may have.” Sally, with strong voice intonation and hand gestures elucidates creating consensus by negotiating the meaning of the model within the PLC and examining other PLC members’ perspectives:

I felt that I really had to be able to collaborate with my [PLC] peers to really talk about it, to dissect every single element, and talk about what it would look like within the classroom, um, give examples to one another of how we actually do that in the day to day setting, so I feel that even though at times it was a lot of work it was exhausting, I'm glad that I was asked to be a part of it because I had to fully immerse myself in Marzano's elements and learn them and you know try to understand them [chuckling].
Creating consensus on the meaning of the model required camaraderie and a commitment to carefully reviewing the Marzano resources as well as listening to other PLC members’ interpretations of the model strategies. It was necessary to be attentive to others, and open to hearing their perspectives. This type of communication was new to PLC members who like all teachers are used to “flying solo” as Elmer described. This description elucidates the isolated environment prevalent in schools which rarely allow sufficient time or a place for creating consensus on the meaning of practices.

Doug was resolute during the interview and appeared to think very carefully after each question. He describes the willingness of his PLC members to change their perceptions after hearing each others’ evidence:

And even though we would go home and we would all do our own research [the Marzano resources – “The Art and Science of Teaching text,” notes from the training, website information, training tutorials], and no matter how much time that I spent, doing my own research, I didn't get a full picture until we came back as a group and saw things from different perspectives, and things that I overlooked.

Caitlin further elucidates this point of being open to one others’ interpretations of the model when she states, “I think I learned [that] we all have different insights and inputs and interpret things different ways... so of course our interpretations were all going to be a little bit different.”

Negotiating the meaning of the Marzano Model involved analyzing how one of the design questions applies in English vs. Math class, thus highlighting the different subject area perspectives, Doug argues:
It took a while for us to pull back and realize that, yes, that is one way it [the design questions in Domain 1] can be perceived, but as you look at different subject areas, certain things would have to look differently in other subject areas, and mathematics is so concrete, for the most part the answer is either correct or it’s incorrect, it's so black and white, whereas when you get into literacy… there is that room for interpretation and so a child could come up with something out of the box and even though it's not what you [were expecting to] perceive, it's not what the answer book is saying, you still have to really hear and listen to that child.

The responses of the participants indicate that negotiating the meaning of the model required PLC members to create consensus through the process of collective inquiry. They felt compelled to thoroughly learn the model, and to do so, with a sense of urgency. They realized that multiple perspectives were needed to really understand the meaning of the model. These responses also suggest that focusing on the model through the lens of the different subjects and grade levels in each of their schools helped them to better understand the practices in context.

**Reflecting on current classroom practices to determine fit with the Marzano Model.**

The second property of Transitioning Knowledge into Personal Practice is reflecting on current classroom practices to determine fit with the Marzano Model. This property is defined as a mental activity of comparing how each PLC member’s own instructional practice is consistent or inconsistent with the Marzano model domains. This mental activity required defining each Marzano practice and analyzing how the definition fit with the vocabulary and meaning of current practices used in each PLC members’ classroom. Ann with her faintly nervous demeanor described that her PLC was personally invested in getting the right information to teaching colleagues. This commitment to “getting it right” drove PLC members to carefully reflect on
every nuance of their individual practices, and the new [similar or different] practices as defined by the model. Comments from teaching colleagues in feedback documents affirm that most valuable to them [in the in-service] was “realizing the close connection to Learning Focused and that we are already doing most of this,” and “acknowledging the skills we learned for Learning Focused are very similar to the new evaluation model.” A comparison of the names of current practices and Marzano practices is listed in Table 1.8.

<table>
<thead>
<tr>
<th>Current Practices</th>
<th>Description</th>
<th>Marzano Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticket Out the Door</td>
<td>Students use of the strategies learned which ensures evidence of learning</td>
<td>Reflecting on Learning</td>
</tr>
<tr>
<td>Think, Pair &amp; Share</td>
<td>Students are paired to think and discuss learning</td>
<td>Reflecting on Learning</td>
</tr>
<tr>
<td>Check for Understanding (also called Summarizers)</td>
<td>Teachers gather evidence of learning during the lesson with formative assessment techniques [questioning, observing, student self monitoring, etc.]</td>
<td>Tracking Student Progress</td>
</tr>
<tr>
<td>Students Interacting with New Knowledge (also called Activators)</td>
<td>Teachers engage in activities that help students link what they already know to new content</td>
<td>Previewing New Content</td>
</tr>
<tr>
<td>Essential Questions</td>
<td>Define exactly what students should know and be able to do as a result of instruction</td>
<td>Providing Clear Learning Goals</td>
</tr>
</tbody>
</table>
Participants’ responses are highlighted in this section with the specific teaching practices [or strategies] italicized. This has been done to allow the reader to identify the educational strategy being discussed by the participants, and to demonstrate the differences in the names/vocabulary of the practices. Although the names of the practices were different in the Marzano Model vs. the Learning Focused model [current practices], after careful analysis by the PLC members, it was discovered that many of the actual classroom practices were the same. For example, transitioning knowledge into practice required PLC members to connect the Marzano Model with the Learning Focused Model, as Mary explains:

It was really important for us to be able to make ties to Learning Focused with the Marzano Model, perfect example is Element 13 in Domain 1, reflecting on learning, that's something we practiced and used many times with Learning Focused, whether that was the ticket out the door or think pair and share, whatever it was those things are all still valid ways to reflect on the learning of the day or learning of that section of the class and I think that people just had to see that, a ticket out the door was the same thing as reflecting on learning as long you were giving students the opportunity to demonstrate either what they've learned or what they didn't understand, it's still the same thing, it just has a different name.

Additional evidence of similar practices but different names for the practices was offered by Caitlin, “whenever you stop to check for understanding you are tracking their progress to see they [the students] actually are meeting the ultimate goal and again you don't even realize that you are doing [it], it's just part of the natural flow of the classroom but that is what you're doing.” Nancy at Elementary School #1 suggested that the practice of students interacting with new knowledge, meant the same thing as previewing new content, and connected these strategies to the
practice of using an *activator*, [to activate students prior knowledge] one of the current terms used to describe teaching; she also compared the practices of *providing clear learning goals* and *essential questions*, in her words Nancy states:

“Well, like in the [strategy] *students interacting with new knowledge*, we, the *previewing new content*, with the Learning Focused program, we always did an *activator*, that’s just your *activator*, some of these, when we went through our [PLC] group, we would be like, oh, that's just this, oh, that's just this, and we came up with the term to tell the staff that we already do this, you know this, because, it is just like *previewing new content*, same thing with *providing a clear learning goal* we always would start with a question [*essential question*] anyway, so it's the exact same thing.

Participants’ indicated that some of the Marzano Model strategies were new, and therefore inconsistent with current classroom practices. Ann suggested that current practices served as a building block for learning the new model. For example, she explains:

We already had our *essential questions* and had those kinds of things, we’ve got those domains already covered, we are supposed to be already going back and doing *summarizers*, all the way through it [the lesson]...I think [it] was a big part of moving into the new direction because we had the building blocks, but we just had to know where to put them and to take them, maybe, to another level.

Taking students to the next “level” that Ann describes in the previous quote required teachers to take time to actively reflect on their lessons; to critically examine how they went, and determine if the students’ learned the material. The Marzano observation protocol included a post observation reflection form to be completed by a teacher after a lesson observation. As she states, “I think the
reflection piece… is something newer to a lot of people.” She further describes the mental activity a teacher may go through after a lesson, “I think we sit there and say did the lesson work, did it not work, what would have been done better, what else could I have done?” This formal reflection piece of the lesson was new to all staff, requiring them to think about and document the effectiveness of the lesson.

After comparing her current teaching strategies with the Marzano strategies, the awareness that perhaps teachers’ could improve their practice is illustrated by Caitlin:

Well I think unfortunately when you teach for so long, you become a little stagnant. And I think that when being introduced with this new evaluation system, it makes you realize maybe you are stuck in your ways and you have been for a while. So I think, overall, it will change your attitude because you realize you do have to kind of, fluff up what you’re doing a little bit because you should be, and you probably did it one time, but then again if you teach the same thing year after year after year you don’t really change what you’ve done and I feel like that by introducing all these new things it does put again, back in your head ideas for you to change your whole outlook on teaching, and to try to improve it.

Reflecting on current classroom practices to determine fit with the Marzano Model helped to affirm PLC members’ understanding of their personal teaching strategies, and the strengths and weaknesses of those practices. In many instances as Mary describes, “there wasn’t that much that was new, it just had a different name.” There were instances however where PLC members expressed that the model made them realize that they should be making improvements in their teaching, as Caitlin states, “you do have to kind of, fluff up what you’re doing a little bit” This mental comparison activity offered PLC members an opportunity to identify inconsistencies in
their personal practices with the Marzano Model, and to admit that they might need to make changes to become better teachers.

**Evaluating New Methods of Instruction.** The third property of Transitioning Knowledge into Personal Practice is Evaluating new methods of instruction. Evaluating new methods of instruction is defined as the practical application of new strategies derived from the Marzano resources to each PLC member’s own classroom and providing each other feedback about what worked. Between the first and second *Learning Sciences* training session and teaching colleagues’ in-service, as well as the second and third *Learning Sciences* trainings and teaching colleagues’ in-service, PLC members had the opportunity to try out the new teaching methods in their classrooms. Hanna explains, “As we were learning, and going through the training, we would try the practices out in the classroom and then come back together and talk about what was successful.”

This hands-on testing of the Marzano practices and the feedback that ensued facilitated a deeper understanding of the meaning of the model domains and components. It also demonstrated how easily they could be incorporated into a lesson. As Mary casually affirms, “By providing people in my [PLC] group with examples of how I was doing and using things from the model, I think it showed people that they could do that very easily, that it wasn’t a complete overhaul of everything they had ever done.” This hands-on experimentation with the model facilitated PLC members’ understanding of the techniques, and gave them an opportunity to experience what the strategies looked like in the classroom, as well as their effect on student learning. PLC members practiced the strategies and then brought their description of this experience back into their PLC meeting discussion. According to Sally, “practicing the strategies provided clarity on the desired
outcome; we got to see what *Innovating* looks like.” Hanna describes using the questioning, discussion, and reflection strategies in the classroom and their effects on students:

In my classroom, personally, I definitely tried to implement some of the *questioning techniques*. Um, making sure that the students were very aware of what the essential *question* was for the day, having them *reflect on their own learning* more, talking more.

Asking students to become active participants in their learning, as Hanna describes, was a new and unfamiliar strategy to the PLC members. For example, the practice of *reflecting on the lesson* by the PLC member, as well as having students *reflect on their own learning* were new Marzano strategies tested out by the PLC members. Hanna tested out the practice of *reflecting on learning* with her students and asked them to write a sentence about the topic she had just covered. She explained that this writing exercise encouraged her students to set goals for themselves for their next lesson in the subject. Ann affirmed that the practice of having students *reflect on their own learning* gave her a better awareness of what was taking place in the lesson regarding her students’ understanding of their learning, explaining, “what do you know, how do you know it, and what did you just learn,” as a dialog she would now have with students.

Other PLC members described the practical application of the strategies and the results. For example, after trying the new Marzano strategies, Bob stated that the model “forces you to think about the learning styles of your students, and to look more carefully at the materials you are going to deliver and your method of delivery.” Janice explained that she had tried out new student grouping strategies when doing Guided Reading that she found to be more effective than her previous strategies. Nancy described her experience with testing out the Mazano practices and how it prepared her to deliver the turn-key training to her teaching colleagues, “Even then we came back [from the *Learning Sciences* training] and we had a couple [PLC] meetings, we tried
stuff out in our room thinking how it would work and what would be a good example to use for the staff.” This application of the strategies provided feedback on how the strategies worked in the classroom as well as real life examples to enhance the comprehension of the model.

Feedback forms from teaching colleagues affirm that PLC members had experienced the strategies and were well prepared to share them. Comments that answer the question regarding what was most valuable for you as a participant include, “strategies that I can use right away,” “many great ideas to use in the classroom,” and “I took away so many ideas I can do in my classroom immediately.”

Evaluating new methods of instruction facilitated collective inquiry and transitioning knowledge into personal practice for the PLC members. It opened up a rich discussion and provided feedback regarding the Marzano strategies using real life applications of how the strategies worked in the classroom. The building principals, too, facilitated ongoing communication on the use of the strategies at grade level meetings, as Paul explains, “aside from the presentations we did a lot of follow-up, we had those three days of training, but we would follow that up in our PLC’s at grade level meetings.” This ‘hands-on’ experience with the Marzano Model and the support from the building administration contributed substantially to PLC members’ understanding and application of the model.

**Managing Stress**

The second theme identified that captures PLC members’ descriptions of their experience of learning through the process of collective inquiry is Managing Stress. Managing stress is defined as using coping strategies to address the anxiety of learning the model in a short time frame [one day in-service and one week to plan the presentation]. Findings indicate that the study participants’ endured a great deal of stress learning and turn-keying the Marzano Model. This
stress was attributed to several factors. First, the PLCs had a limited amount of time to learn the information from *Learning Sciences* and then deliver the in-service training (about a week). This time limitation had been imposed on them by the District who scheduled the teacher in-service days and *Learning Sciences* training dates the previous school year. Second, it was a huge responsibility to learn the model and then teach it to colleagues since teachers typically teach students and not their peers. And lastly, acknowledging that the evaluation was tied directly to teachers’ final performance assessment created anxiety for themselves and their teaching colleagues. For example Ann affirms:

> And then all the sudden we were going boom, boom, boom, boom and we were learning and we were teaching and we were learning and we were teaching within a week and that was even more stressful, because we were trying to keep a regular school [day], things that we had to do, tasks, grading, planning and do this and grasp this and figure out how to teach this, it was a little overwhelming.

PLC members needed to manage the stress of the task at hand with coping strategies. Findings indicate that several coping strategies were used by PLC members. The first coping strategy was deliberately reaching out to their building principal for feedback and guidance. Findings indicate that the reassurance of the principal regarding the work being done within the PLC quieted the tensions of the PLC members. The feedback also provided the administrators’ expectations and assisted the PLC in planning the training without the fear of communicating the wrong information. Tom, a well respected and committed principal at Elementary School #2 talked about the importance of answering questions and being a part of the PLC team:

> I think through my support, because they knew that I was there to support them, I was with them every step of the way, I was there answering questions, I was there at grade
level meetings, doing the trainings and what I did during their presentations, I always interjected and elaborated, so then I essentially became part of their team… a lot of it for me [was to] to convey my expectations so there was no miscommunication.

Janice, who in the interview was very positive and energetic in her responses, iterated the importance of having her principal’s support during the learning of the model. This support gave her confidence to “step outside her comfort zone,” She further explains:

I think the support of, you know, our principal, he's very encouraging, and supportive, I think, that's number one, you know, like he's always on board, okay try it, you know, go ahead, and I think you need to have that comfort of knowing, okay it might not work, but go ahead and try it and we had that support.

The support Janice refers to was a sense of comfort that was needed to experiment with new things during the learning process; it was a license to fail and try again without fear; to give out ‘no information’ or the wrong information and still feel secure as a teacher. PLC members felt both overwhelmed and invigorated by the task. Caitlin expressed that the task was more difficult to understand and convey than originally thought, and Bob spoke to how important it was for them to be well prepared in the content. Nancy, from Elementary School #1 discusses the accessibility of her principal and his receptivity to her questions and responses:

I also think going as a liaison with our principal -- because we could go [to him], and if people came to us for a question, I didn't feel any negativity or whatever. I could ask, "What do you think about this?" and I didn't feel like anything -- in fact, he was very receptive and listened and understood and thought about it, or said, "Oh, yeah, I think that this is what we should go with.”
The accessibility of the principals and the principals’ investment in the success of the turn-key was essential in helping the PLC members’ manage their stress. Knowing that they had a limited amount of time to prepare for the in-service training, and wanting to be an expert as Ann described, made it very important for them to be able to bounce ideas off their building principals. Feedback forms confirmed that administrative input at the in-service was valuable, for example, “administration answering questions about the rubric,” was a written comment.

A second coping strategy used by the PLC members was their personal time commitment to learning and planning the in-service. The PLC members felt compelled to deeply understand every aspect of the Marzano Model. They needed to review the book, *The Art and Science of Teaching*, watch the *Learning Sciences* tutorials, study the domains [*Learning Map*], and discuss every component of the model. This type of learning, [to completely understand as well as teach others with confidence] took an enormous amount of time. Professional days were scheduled for this work and PLC members’ classes were covered by substitutes. This time however was not enough. They took it upon themselves to stay after the school day and into the evenings to learn the material. According to Mary, “The first time that we got together, to get that information together we spent days on it.”

Participants’ shared the need to learn together as a team that respects and values each others’ opinions and who care deeply about learning. Giving each other the time to learn at their own level, as well as pace, was a sensitivity that PLC members embraced. They realized that time was essential to learning and planning and during this time they became what Sally referred to as “practitioner-researchers.” Bob stated the need to be well prepared for the intense questioning of details he anticipated from teaching colleagues. Hanna iterates the importance of spending time on learning the model when she states, “we knew we would be working for hours
because we wanted to delve into it.” Participants consistently referenced the term “being on the same page together” throughout the interviews. This time allowed them the opportunity to “live it” as Sally states, and to “own it” as Bob describes.

The building principals’ elucidated the time PLC members spent learning the model. Tom states, “I gave them [PLC members] time, where they were able to meet during the day and in the evenings, we had scheduled meetings where we discussed [the model], again and again.” Paul states, “Number one, the time that they spent… a lot of time beyond the professional days that they were given, they were here late, we were here until 5, some of them, even after I left.” These descriptions by the PLC members and building principals confirm the time they took to manage the stress of collectively learning the model.

A final coping strategy was the individual PLC members taking charge of the learning, planning, and teaching responsibilities required with the turn-key. Participants stated that they “stepped up in different areas.” PLC members committed themselves to certain components of the in-service, for example, finding examples of certain strategies, creating the PowerPoint, and anticipating questions. Nancy explains her team taking on tasks, “So, we all were very easy to choose which parts we had, based on our strengths and we trusted that those other people would complete the task as they said they would.” Doug expressed that they relied on each others’ expertise, and according to Janice and Hanna, they worked as a team to feel secure in their goal. This expression of mutual trust in getting the job done was iterated throughout the data. During the in-service days, PLC members were observed taking on components of the presentation and stepping up as needed to answer teaching colleagues’ questions. The PLC members would defer to each other during the presentation or look to each other for affirmation of their explanations. The cohesive presentation that took place required intense planning and collaboration.
Janice referred to her PLC as working together to both manage stress and maintain a sense of calm [for themselves and their teaching colleagues]:

I knew that it was going to be overwhelming and we were overwhelmed looking at it and thinking, oh, gosh, we have to make sure the way we present this is definitely as calm as possible and I was surprised how quickly everybody was just like, oh, I'll type that scale up and I'll give it to everybody, and everybody was just jumping in very quickly.

Taking on the responsibility of certain tasks was a process that took place over time for the High School PLC. Mary’s comments point to a [sort of] delegated volunteerism:

In that first meeting we had to delegate whose job was what, who wanted to put slides together, who wanted to provide supplemental information, so at first we just didn't have our roles clearly assigned and as we were able to meet after that everybody knew what their job was and that made things a lot easier, much more streamlined in the following sessions.

Findings indicate that the PLC members were able to move away from the stress they endured to constructive action. They did this by developing a shared understanding of the Marzano Model with each other, and with the accessibility of their building principal. They scheduled personal learning time together beyond the school day for collective inquiry, and took on the responsibilities of planning and delivering the in-service by committing to individual tasks as a team.

**Translating the Marzano Model into Teaching Colleagues’ Practices**

The third theme identified that captures PLC members’ descriptions of their experience of learning through the process of collective inquiry is Translating the Marzano Model into Teaching Colleagues’ Practice. This is defined as collectively generating multiple examples that extend
their knowledge of the Marzano Model to other disciplines so that teaching colleagues can see relevant examples. PLC members experienced demands for detailed examples from their teaching colleagues. Teaching colleagues wanted to know exactly what this model would look like in their classrooms with their students [a component of their resistance], and PLC members were committed to giving them as much detailed information as they could. This put pressure on PLC members to find relevant examples of the Marzano Model strategies being used in various grade levels [K-12] and subjects. PLC members worked diligently to create examples of the application of the strategies in a language their teaching colleagues understood. They attempted to translate the model such that it incorporated all disciplines. For example, Mary describes the universality of the model, “The Marzano teaching strategies can be practiced across disciplines in content-based and skills-based classes; art, music, physical education, math, and science, thus, special area teachers bought into the model more readily.” Seventeen percent of the Feedback forms from teaching colleagues affirmed that the ideas, examples and strategies shared during the in-service were valuable to them. Written feedback included, “examples that were clear and understandable,” and “ideas I can implement tomorrow,” as important to teaching colleagues.

Convincing special area teachers [for example, technology, health and physical education, art, and music] that the Marzano Model practices were relevant to their curriculum was challenging for PLC members. Special area teachers teach what Mary refers to as “performance based skills.” Mary further elucidates the difference between skills-based and content-based teaching in the following:

I was concerned because people in those departments [skills-based] generally come into workshops with the idea that things may not apply to them and that’s just been our experience that lots of times that’s how it is, but actually because these things were so
specific within Domain 1, it actually I think made more sense because it was so much more specific, that they could actually show this is what this [practice] looks like and this is what this [practice] looks like, and you realize that those things [practices] occur across disciplines it's not just something that's more content-based or more skills-based.

Getting the ‘buy-in’ from teaching colleagues outside the academic content areas was perceived as a challenge for the PLC members. Doug, expressing himself freely, draws a distinction between special area teachers and content area teachers and explains how he was able to provide examples relevant to their practice:

When we did the workshops based on the Marzano Model, we went out of our way to make them [special area teachers] feel a part, when we did examples, we not only pulled from math or literacy, which would be easy to do, but we gave special area examples, I think with that they felt that they were a part of this.

Not only was it necessary for PLC members to provide special area examples, they also worked to provide specific grade level examples. During the learning and planning work, PLC members at Elementary School #1 and Elementary School #2 were observed discussing how the Marzano resources focused on secondary examples [grades 6-12] of teaching practices. They expressed that the tutorials, text, and practice examples were not as abundant for elementary school teachers as they were for secondary educators. This presented demands for PLC members to come up with preschool to grade five examples for their teaching colleagues that were meaningful and relevant to their grade level of students. Sally, at Elementary School #1 describes how her PLC discussed practices relevant to her school’s preschool to grade two populations of students:
We needed to discuss at our level how it [the practice] actually looked in a lesson, in our classroom, so when we met together to discuss before we gave the information to the staff we had to go through each element and say how would that look in our classroom [grades PK-2]… so we could then give real examples to our staff at our level.

The opportunity for ongoing dialog between PLC members and teaching colleagues during and between the in-services promoted the building of knowledge [and specific examples] school wide. “Chances to brainstorm and collaborate with colleagues” during the in-service was stated in one of the feedback forms as most valuable to teaching colleagues. The documents also indicated that “sharing ideas amongst ourselves,” and “connecting with other teachers” as helpful. Nancy describes the dialog, “You know I look at it over a period of almost like a year, because there were three training – three PLC sessions, three training sessions… you know, teachers [teaching colleagues] each time they got a little bit more – and maybe had a few more questions, or a few more answers. This idea generation [or what Nancy refers to as answers] from teaching colleagues helped to create even more resources and examples for the PLC members to share with all teaching staff. The feedback thus began to expand beyond the PLC to incorporate real life examples of practices used by teaching colleagues in all content areas and grade levels. This feedback from teaching colleagues was significant in that it embellished the reservoir of resources exponentially and thus increased learning capacity across the schools.

Understanding and conveying specific examples of practices across disciplines enhanced PLC members’ learning, as well as their ability to be a resource to their teaching colleagues. Listening to and using teaching colleagues’ examples of strategies also increased PLC members’ learning and teaching resources and their ability to reach out to teaching colleagues across the schools. Having multiple relevant classroom examples of practices to share was necessary to
encourage all teaching colleagues to experience the model’s relevance to them, and to ultimately adopt it. Creating these interdisciplinary examples was a prominent focus for PLC members during the planning and delivery of the three in-services.

Section Summary

This section described three central themes that capture PLC members’ descriptions of their experience of learning through the process of collective inquiry: a/ Transitioning Knowledge into Personal Practice, b/ Managing Stress, and c/ Translating the Marzano Model into Teaching Colleagues’ Practices. The category Transitioning Knowledge into Personal Practice included three properties that represent distinct practices; Negotiating the meaning of the Marzano Model; Reflecting on current classroom practices to determine fit with the Marzano Model; and Evaluating new methods of instruction. Although these categories and properties are listed separately and do not conceptually overlap, they are by no means disconnected. For example, findings indicate that learning required developing a shared understanding of the model through meaning negotiation, reflecting on current practices to determine fit with the new model, and experimenting with new practices. Collective inquiry occurred within a very stressful context imposed by two components: the amount of information to learn and the limited time in which to do so. The findings indicate that learning the Marzano practices took a great deal of time [both inside and outside of the school day], the sharing of responsibilities for learning and planning within the PLC, and the support of and access to the building principals. Finally, PLC members experience learning through the process of collective inquiry required them to create interdisciplinary examples relevant to their teaching colleagues’ assignments and the population of students that they taught. Their body of resources continued to increase with feedback from teaching colleagues.
PLC Members’ Descriptions of their Experience as Leaders in this Change Effort

Three primary themes were identified that capture PLC members’ descriptions of their experience as leaders in this change effort: a/ Sharing Governance, b/ Becoming an Advocate for Change, and c/ Promoting Shared Values. The following thematic sections describe PLC members’ experiences as leaders of change. Relevant excerpts from interview transcripts are included in each section to help elucidate each theme.

Sharing Governance

The first theme identified that captures PLC members’ descriptions of their experience as leaders in this change effort is Sharing Governance. Sharing governance is defined as carefully balancing taking charge of the PLC discussion with yielding to other members so that all ideas were respected and shared while increasingly moving them to critique. Findings indicate that PLC members’ were very respectful of each other during their discussions and openly listened to everyone’s ideas and opinions. Lynn, the Assistant Principal at the High School during the turn-key describes the feelings of respect and yielding to others during PLC discussions in this way:

The nice thing about that group [PLC] is that everyone felt that they had a voice and no one felt that they couldn't contribute, so everyone respected that of others; there was that feeling of trust in the group, which I think is necessary to implement any kind of change.

This reference that Lynn makes to “trust,” and “respect for one another” was iterated consistently by participants during the interview process. Hanna, Sally and Mary all expressed that as they worked together in their PLC, their comfort with each other increased as well as their confidence in understanding the material. The participants truly felt that they were in it together, to lead this initiative as a team, and there was an unwavering commitment to the task assigned to them.
Findings indicate that there were times when an individual in the PLC could get sidetracked, distracting their group from the task at hand. Bob describes yielding to other PLC members and his perception of the reaction:

Sometimes there's members of your group who are missing or hung up on a certain aspect and you want to clarify things for them but they need to come to the realization themselves and sometimes you can get side tracked so that can happen, where you have a member of the group who is very productive but they may get side tracked and that tends to steer the group away, but the nice thing about a PLC is that you can kind of navigate back because… it's not just one single person so you have a whole team that can bring back the focus.

In this quote Bob is describing his sensitivity to others in his PLC who may have needed more time to understand certain aspects of the model. This idea of “navigating back,” as Bob describes, demonstrates the focus the PLC members had as a team, collectively on the task. The group phenomenon provided stability in both yielding to others, and affirming that consensus was important in moving forward in completing the task.

As trust developed, PLC members became comfortable evaluating and critiquing each others’ ideas. This was a dynamic shift that took place whereby PLC members were a bit tentative and observant of each other at first, and over time became both assertive as well as critical of each others’ ideas. Janice describes the shift in interactions that took place within her PLC:

I think at first if someone has an idea… you don’t want to interject too much, not that you’d be shooting it down, but you don’t want to criticize, you know, you don’t want to
hurt anyone's feeling and you also, like the idea, you respect the person and you wouldn't want to say anything to offend anybody, you know, so we were very like cautious at first, like okay that's good let’s try that, and then by the end we were like not afraid to be like hey how about we do this too with it and then all of us were jumping in and then the idea was growing.

This quote demonstrates that although tentative at first, an eventual comfort level ensued within the PLC that encouraged members’ to participate in a more assertive manner. The resultant interactions became more open and relaxed as time went on. Thus, PLC members were not afraid to express themselves, or fear what they said would hurt others’ feelings. This open dialog allowed for the expansion of ideas and growth in learning.

Recognizing that shared ideas were powerful and necessary in embracing change, PLC members began to assert themselves as leaders. For example, Doug describes having his point heard by members of his PLC, and them yielding to his message, “I found myself, some things that they [PLC members] just, kind of, glanced over, I said, "no" (tapping on table) let’s look at this, lets address this, let’s think about this, lets question this,” and their response was, “well oh, we never looked at it that way.” Here Doug demonstrates taking charge as a leader within his PLC. He is emphatic that nothing be glossed over, that every element is thought about and questioned, and in the end his PLC yielded to him and recognized this. Other participants too, such as Hanna, Janice and Nancy all stated that they supported each other as leaders within their PLCs.

Findings indicate that PLC members became strong leaders who shared governance. This sharing governance evolved out of respect for each other as both learners and leaders. They were
willing to yield to one another during discussions, to redirect the conversation with questions and ideas, and even take charge and demand to be heard when they were passionate about a certain point. Documents reflect that “they [PLC members] are part of the process [of learning and implementing the model]...breaks down walls,” and “the facilitators and their realistic view of what was necessary [to teach and learn],” was a valuable aspect of the in-service.

**Becoming an Advocate for Change**

The second theme identified that captures PLC members’ descriptions of their experience as leaders in this change effort is Becoming an Advocate for Change. Becoming an advocate for change is defined as PLC members being accessible and assuming the responsibility of coach for the purpose of inspiring teaching colleagues to change. This is a remarkable phenomenon given the fact that teachers are very busy people. They work long days; planning, teaching, and assessing student performance. They are also expected to attend meetings, cover colleagues’ classes, and respond to the needs of parents and administrators. Embracing the Marzano Model and taking on the role of coach was well beyond their job responsibilities. PLC members did however, make themselves accessible to colleagues, and as Tom affirms, foment change:

They [PLC members] definitely knew that they were instrumental in impacting change, no question about it. They would have meeting groups, before school started, they would position themselves in our mural area [front lobby] and teachers [teaching colleagues] were able to go to them prior to the start of school with any questions they had.

Here, Tom describes the PLC members at Elementary School #2 being accessible by positioning themselves in the lobby just beyond the front door entrance. As coaches, they were available to assist their teaching colleagues with planning lessons that incorporated the Marzano strategies.
They took their own personal time [time that could have been spent on their own planning] to meet with teaching colleagues before school to clarify any confusion regarding the model or to simply direct the sharing of ideas regarding teaching practices. This accessibility also took place spontaneously, as Janice describes her open forum classroom:

> Just because I did the presentation on a day in December, people still would come to me outside of that time and ask for clarification [of the model]… I had an open door, come in if you don’t’ understand something, or if you need help with something, you know, we're here for you.

Not only were PLC members accessible to help, they were change advocates. The PLC members empowered themselves as leaders to be approachable to teaching colleagues in implementing the model. Caitlin, from the Middle School affirms:

> I felt that my leadership in the PLC in learning about Marzano made me someone that was more accessible to people on my team, or even subject area that had questions about certain things, and they came to me for help and for answers, and I was able to give it to them.

Mary stated that she was willing to help her teaching colleagues at the High School regardless of their teaching assignment, indicating her awareness of herself as a coach. She states, “I tried to really follow up with them [teaching colleagues] so that they knew that if there were things that came along that they just didn't understand, that we could continue to work on it beyond the presentation day.” Hanna describes her approachability as a leader and the comfort level of her teaching colleagues in asking questions, she affirms, “I think that because of teachers feeling that they could come to me and I had a lot of teachers, come, ask questions, and feel very
comfortable, because I think I'm approachable, and they didn't feel that they were being judged.” According to Caitlin, she took time to sit down with her teaching colleagues to review the model and research information and describes, “I was able to go over it [the model]; I know that the other teachers [PLC members] did as well… [And] if they didn't understand something, or they needed me to look something up about different things [I would do that].”

Paul, the principal from Elementary School #1 described his PLC as “go to people…key people that can communicate expectations and help develop teachers, and build and support leadership within the ranks.” Paul further states the role his school level PLC took in the change process:

Having the teachers involved [PLC members] the people who have to live it [the Marzano Model] every day, that showed everyone else that we can do this, this is okay…if these people are buying in and if these people are delivering this message along with the building administration then I just created more of a comfort level.

This quote elucidates Paul’s reference to his PLC members as having sincerely embraced the model [having to live it every day] and as coaches able to create a greater degree of comfort with teaching colleagues taking on the new practices. Paul iterated his reliance on them to deliver the training, and to develop the teachers so that the entire teaching staff could adopt the model with a sense of ease.

The evidence cited within this theme confirms that PLC members became advocates for change within their school buildings. The documents reflected that teaching colleagues acknowledged that change was imminent, “I learned that I am good, but can be better; it’s just a new way to evaluate.” Bob asserts, “change was done as a group collectively…we went from
learners of the model to owners of the model.” This ownership was demonstrated by making themselves accessible as a resource to their teaching colleagues and assuming the responsibility of a coach and mentor. In their role, they inspired their teaching colleagues to embrace the Marzano model and change their teaching practices.

**Promoting Shared Values**

The third theme identified that captures PLC members’ descriptions of their experience as leaders in this change effort is Promoting Shared Values. Promoting Shared Values is defined as helping teaching colleagues move outside of their isolated classroom environments to engage in the collaborative exchange of ideas with PLC members and each other regarding the Marzano Model and teaching strategies. Two values that were promoted through the leadership of the PLC members were collaboration; or open dialog amongst teaching colleagues, and the ultimate challenging of the status quo teaching practices that were being used within the classrooms. This open and questioning dialog was new to all staff members. Over time, as a result of the in-services and the discussions that took place in each school building about teaching and learning, the language of the model became imbedded in everyday conversations. Tom explains that, “discussions began at the faculty meeting then moved to the grade level meeting, then into the lessons plans, and ultimately into the hallway as informal chat; there was strong carry-over.” This notion of “carry over” that Tom describes within the school whereby conversations became more focused on student learning and the sharing of lesson plans at grade level meetings, in the hallways, and in the copy room is elucidated by Janice, as she affirms:

Our grade level meetings were definitely more focused on the content and so in the hall it just was a natural thing… and you just gather up and share something, look what this
student did and this might really work if anybody wants a copy, we'd be in the copy room, so I think it started more formally, in our grade levels, and then you know, we only had 25 to 30 minutes some days, and so it was natural for it to just move into the hall and I guess the comfort level was there because we had been doing it and everybody wasn't afraid to share at some point.

Because of the isolation that typically permeates many schools, this openness and sharing was surprising even to the PLC members. The fact that teaching colleagues were coming out of their classroom to discuss teaching strategies and student learning was a change for everyone, as Janice affirms, “I think that there's a lot of isolation in education at times… so being in a situation where you're talking with others, learning from others, you know, that's a huge change from the way we taught before.”

This act of sharing that was promoted through the leadership of the PLC members encouraged teaching colleagues to experiment with the Marzano practices, share the results [and as they experienced their effectiveness] ultimately challenge the status quo. For example, feedback documents overwhelmingly indicated that the “small group discussions” that took place during the in-service days were valuable to teaching colleagues, and that “the stop and share moments where teachers swapped ideas,” and were able to “apply the knowledge with a partner,” were positive. Nineteen percent of teaching colleagues indicated that collaboration with peers was a valuable aspect of the in-service. Hanna affirms during the school day, “some teachers [teaching colleagues] had come up with strategies on their own and they started sharing, they put something in a mailbox that they had found that they were using in their classroom.” These ideas from teaching colleagues were shared with all staff by the building principal at faculty meetings.
Paul, the principal at Elementary School #1 explains how teaching colleagues tried out new strategies, challenging the status quo:

> I have a couple of staff members [teaching colleagues] who are resistant to change, but they have embraced this, they have even taken initiative and made changes in different areas on their own, and then come to me and said, "hey, I tried this" and then I immediately have the responsibility to share it [the strategy] at the grade level meeting.

The building principal’s commitment to sharing how teaching colleagues were trying the new strategies at grade level meetings opened up the dialog within the school. This building wide collaboration encouraged teaching colleagues to discuss the new strategies which permeated the conversation during the in-services at Elementary School #1, as Sally describes:

> I learned from them [teaching colleagues] too, I would say this is how, I understand these elements to be, this is how I'm using them in my classroom, but please share with me as well, you know, I'll try and find answers for you, I'm happy to share with you what I do, but like I said, I'm not the authority, and what you’re doing is just as valid as what I'm doing, so even though I had that leadership role I feel that we still did learn from one another.

Here, Sally demonstrates that she is encouraging a growth oriented dialog amongst her peers, careful not to assume the role of an authoritative leader. She was willing to help teaching colleagues find answers to their questions, but she was also willing to listen and learn from them. Caitlin elucidates the exchange of ideas and the continued questioning of the Marzano practices in her school, “I feel like there is a lot of open communication in the school, in between colleagues, I think it [the model] is still overwhelming, even though, it's with us now this full year.” Noting the scope of the learning that is still necessary at the Middle School, Caitlin recognizes [as a school
leader] the ongoing nature of this initiative and the effort needed by all staff to continue this open communication to implement the Marzano Model successfully.

It is evident from the findings that transforming conversations that promoted shared values began to take place in the schools regarding the Marzano Model practices and their application in the classrooms. The PLC members and administrators encouraged teaching colleagues to speak openly about their experiences with the model. Thus, teaching colleagues felt safe sharing their understanding of the model and their experiences trying the practices. Because the PLC members assumed roles as leaders and implementation exemplars, they were able to facilitate the collaborative discussions and keep them going well beyond the in-service days, the grade level meetings, and the faculty meetings. These conversations also took place in the school lobby, hallways and in classrooms. This formal and informal exchange of ideas and the sharing of classroom examples using the Marzano Model practices would challenge the status quo within the schools by embedding the language and practices of the model.

**Section Summary**

This section describes three main themes that capture PLC members’ experiences as leaders in the change effort: a/ Sharing Governance, b/ Being an Advocate for Change, and c/ Promoting Shared Values. Although these categories and properties are listed separately and do not conceptually overlap, they are by no means disconnected. The findings indicate that PLC members shared governance by carefully balancing the direction and focus of the discussions with both yielding and taking charge of ideas within the respectful environment of the professional learning community. Secondly, PLC members as leaders, became advocates for change by making themselves accessible as role models and coaches to assist their teaching colleagues in
learning and applying the model within their own classrooms. Finally, teaching colleagues, with the support and guidance of their PLC members and the principal, exchanged their own ideas and experiences with the Marzano Model practices.

**Chapter Summary**

Chapter Four offered findings for the three research questions used to guide this basic qualitative study. The first question focused on PLC members’ descriptions of the purpose of a PLC tasked with implementing a new teacher evaluation system. PLC members’ descriptions of the purpose of their professional learning community was to turn-key the Marzano Model by breaking it down into component parts within a community structure in order to convey these components to teaching colleagues. Additionally, the purpose of the PLC was to provide an open forum within which a safe environment allowed PLC members to acknowledge their frustrations, and to question the model and evaluation rubric. This questioning was done in anticipation of addressing the resistance they perceived their teaching colleagues would have to the change.

The second research questions focused on PLC members’ descriptions of their experience of learning through the process of collective inquiry. Three themes were identified that describe PLC members’ experiences learning through the process of collective inquiry. These themes include transitioning knowledge into personal practice, managing stress, and translating the Marzano Model into teaching colleagues’ practices. The first category, transitioning knowledge into personal practice, includes three properties: negotiating the meaning of the Marzano Model, reflecting on current classroom practices to determine fit with the Marzano Model, and evaluating new methods of instruction.

The final research question focused on PLC members’ descriptions of their experience as leaders in the change effort. Three themes were identified that describe PLC members’
descriptions of their leadership. These themes include sharing governance, becoming an advocate for change, and promoting shared values. Figure 1.5 presents a synthesis model of learning and leading change in a PLC. This model demonstrates the dynamics of change that took place inside and outside the PLC.

Within the PLC, collective inquiry took place in a safe and open forum that helped to reduce the anxiety they were experiencing learning and leading change. Guidance from the building principal was solicited to better understand the evaluation rubric which also helped to minimize their anxiety. PLC members applied the new techniques to their own personal practice and through feedback on how they worked, began to change their individual instructional
practices. PLC members shared governance while learning. An atmosphere of trust and respect evolved into the collaborative growth of ideas and a passionate advocacy for change.

In preparation for the formal in-service, PLC members divided up the responsibilities needed to confidently convey the model to teaching colleagues. They researched the model creating relevant examples for their colleagues to assist them in implementing the strategies in their own classrooms. During the formal in-service training, feedback from teaching colleagues’ understanding and experiences with the model facilitated learning for all teachers. Between the in-service dates and when the training was completed, PLC members advocated for systemic change by making themselves approachable and accessible within their schools to answer questions and share ideas.

Significant feedback loops that created two-way communication served to promote change. The first loop was with the principals who made themselves available to answer questions within the PLC, during the trainings, and informally throughout their school buildings. A second feedback loop persisted within the PLC while developing a deep understanding of the model as they applied the new techniques to personal practice and shared the techniques with one another. A third feedback loop occurred during the formal in-service whereby PLC members and teaching colleagues together synthesized the meaning of the model. A final feedback loop advocated for enduring change as PLC members informally shared ideas and facilitated the communication of new experiences with practices amongst teaching colleagues.

Both learning and leadership were needed to create lasting change. The PLC members went above and beyond to ensure that change occurred. Conclusions drawn from the data, a discussion of the findings, implications for practice, and recommendations for future research are included in the following Chapter Five.
CHAPTER FIVE

CONCLUSIONS, DISCUSSION, IMPLICATIONS FOR PRACTICE, AND RECOMMENDATIONS FOR FUTURE RESEARCH

Using a general inductive methodology, the purpose of this study was to explore teachers’ experiences learning and leading change in a professional learning community tasked with planning and implementing a new teacher evaluation system in a small mid-Atlantic school district. The three research questions informing this study were:

1. How do PLC members describe the purpose of a PLC tasked with implementing a new teacher evaluation system?
2. How do PLC members describe their experience of learning through the process of collective inquiry?
3. How do PLC members describe their experience as leaders in this change effort?

This qualitative study explored teacher PLC members’ descriptions of learning a new teacher evaluation system and leading this change initiative in Middle Township Public School District located in Cape May Court House, New Jersey. Because this was practice-based research, the sampling for this study was purposeful. The participants were selected from the District Evaluation Advisory Committee (DEAC), a committee established to oversee the TeachNJ legislation mandating the implementation of one of the state recommended teacher evaluation models. The building level PLCs in this study were assigned the task of turn-keying the Marzano Causal Teacher Evaluation System during the 2012-2013 school year. A total of ten teachers participated in the study. Three building level administrators also served as participants and their responses to interview questions were used to triangulate the teacher data. All
participants engaged in (2) in-depth interviews. Survey data and reflective observation data were also included in the findings.

The purpose of this chapter is to discuss research conclusions, implications for practice, and recommendations for future research. The chapter is arranged into three major sections: a) Conclusions and Discussion, b) Implications for Practice, and c) Recommendations for Future Research.

Conclusions and Discussion

This section offers conclusions and discussion for this basic qualitative study. Four salient conclusions were drawn from an analysis of the data: a/ Learning in a safe and open environment with a defined purpose facilitates change in a PLC; b/ Learning and leading change requires strategies for moving beyond stress to constructive action; c/ Learning through collective inquiry requires successive cycles of learning and application; learning the model by breaking it down, generating research and new ideas, applying first to personal practice, then being a conduit for application of colleagues’ practices; and d/ Advocating for change requires sharing governance and promoting shared values, first in the PLC and then in the practice setting. The following four sections elucidate these conclusions and discuss how they relate to existing literature and the conceptual frameworks that guided this study.

Conclusion One: Learning in a Safe and Open Environment with a Defined Purpose Facilitates Change in a PLC

The first conclusion drawn from this study is that having an established purpose for the PLC is essential to its success. In this study, PLC members were tasked with implementing the Marzano Causal Teacher Evaluation Model; specifically, taking what they had been taught by the Learning Sciences consultants and learning it by breaking it down into manageable chunks, such that they had the confidence to convey it to their teaching colleagues. The Marzano Model
Domains and Elements were clearly defined within the model and the PLC members would they had the opportunity to communicate openly, to acknowledge their frustrations, and to question the model strategies and the evaluation rubric. The safety of this environment also encouraged PLC members to reflect on their own personal practices. This personal reflection and the feedback solicited from the building principal allowed PLC members to safely admit their weaknesses as teachers, and to discuss how the model could improve their classroom practices. Because this model was new to the District, it was anticipated that their teaching colleagues would be resistant to it. Thus, PLC members were able to address ways that they might minimize this opposition, for example, creating meaningful and relevant grade level and subject area examples of the practices.

Research on PLCs confirms that a sense of purpose is essential to its success. Phillip’s (2003) study created learning communities specifically focused on creating a set of innovative curricula designed to target low-achieving students in an urban middle school. Harris and Jones (2011), and others (e.g., DuFour & Eaker, 1998; DuFour, Eaker, & DuFour, 2005; Hord, & Hirsh 2008, 2009; Stoll, et. al, 2006), affirm that learning within the context of PLCs involves working together towards a common understanding of practices, or a common goal.

This conclusion regarding a sense of purpose can be tied directly to the Planned Organizational Change Model (Porras and Silvers, 1991), one of the conceptual frameworks for this study. The change process in the model (Porras and Silvers, 1991) begins with some type of intervention that is intended to affect an organization’s vision [an Organization Transformation Intervention]. The macro change intervention in this study is the mandated teacher evaluation system implementation. Since the PLC is an intervention that facilitates a shared vision, or shared
purpose, [of implementing a new evaluation model], this change intervention may be viewed as a catalyst for changes in learning [cognition] and behavior.

For example, the establishment of PLCs, tasked with learning and leading the implementation of the Marzano model was a very specific purpose that drove the macro change in the District. This PLC change intervention created a new vision for leadership and learning, allowing teachers as part of a professional learning community to assume both a learning and leadership role in turn-keying the new evaluation model to their teaching colleagues. According to the model, the intervention [building level PLCs] and work setting [open, safe environment] affect organizational members’ thought processes [cognition] on any one level or at multiple levels; alpha, beta, or gamma changes and thus impact behavior in the form of change, or enhanced individual development. Thus cognitive change leads to behavior change and is tied to enhanced individual development and improved organizational performance using PLCs as a change intervention. Findings indicate that system wide change occurred when the PLC members purposefully focused on pedagogical improvement within a safe and open forum by learning and leading the learning of the Marzano model.

Elmore (2008) posits that learning is both an individual and a social activity that demands an environment that guides and directs the acquisition of new knowledge about instruction. Elmore (2008) also states that teachers need to be “protected from external scrutiny,” or buffered from outside intrusions in their “uncertain and murky work” (p. 46). Schein (2002) argues that the creation of psychological safety to overcome learning anxiety is a critical stage of the change process. Schein (2002) further states that “genuine inquiry in the service of helping the change target to accept and make the change is the most crucial aspect of creating psychological safety, and probably the most difficult to manage interpersonally” (p. 37). This research aligns with the
findings in my study suggesting the importance of offering a safe and comfortable place for PLC members to learn themselves, and to anticipate the resistance their teaching colleagues might have to the new model. Within this safe open forum, PLC members could share opinions, question the model and examine their own personal teaching practices. They felt comfortable discussing their personal weaknesses and how they might need to make changes to meet the requirements of the evaluation rubric.

**Conclusion Two: Learning and Leading Change Requires Strategies for Moving Beyond Stress to Constructive Action**

The second conclusion of this study is that managing stress is critical in learning through the process of collective inquiry. It is also necessary in order to proceed forward to constructive action. Managing stress required using coping strategies to address the anxiety of learning the model in such a short time frame [one day in-service and one week to plan the presentation]. This stress was attributed to several factors: the time constraints imposed by the District on the PLC members to learn the information from *Learning Sciences* and then deliver the in-service training (about a week), the responsibility of both learning and teaching the model to their colleagues, and acknowledging that the evaluation was tied directly to final performance evaluations and therefore created anxiety for themselves and their teaching colleagues. PLC members needed to be able to manage the stress of the task at hand with coping strategies. Findings indicate that several coping strategies were used to manage stress. The first coping strategy they employed was to seek guidance and clarification from their building principals on the meaning of the model and evaluation rubric. Second, they took their own personal time, well beyond their contracted day, to fully comprehend the domains and elements. Third, they stepped up within their PLC to take on specific responsibilities in order to make the turn-key training as effective as possible. Though
the research on PLCs does not confirm stress experienced by PLC members during their collective inquiry work, it does support the use of feedback from administration (DuFour, Eaker, & DuFour, 2005; Senge, 1990; Thornton, et al., 2007); as well as time needed to build a collaborative culture (Saunders, Goldenberg, & Gallimore, 2009; Schein, 2002; Spillane, 2006).

During the in-service, principals and assistant principals were available to answer questions, or simply to diffuse uncertainty particularly in the area of using the rubric to score teacher practices. Regarding the importance of feedback, Thornton, et al. (2007) argues, the key to the development of a learning organization is effective and systematic feedback provided by school leadership, and organizations that are able to learn are able to disseminate information, problem solve, experiment, and analyze their own and others experiences. This notion of feedback supports the concept of the learning organization (Senge, 1990) and is further elucidated by DuFour, Eaker, and DuFour (2005) who posit that schools benefit from feedback and the distribution of findings which can guide improvement in teaching and learning by using teams in the form of PLCs.

The notion of taking their own personal time to learn and plan the delivery of the in-service was a second coping mechanism employed by the PLCs. PLC members committed hours of time beyond their contracted school day to collectively learn the model. This analysis of the domains and component parts, took place both individually and as a team. Making time for learning within a PLC is supported by Saunders, Goldenberg, and Gallimore (2009) who found that consistent meeting times are essential to grade level teamwork, and Spillane (2006) who affirms the importance of teacher leaders supporting norms of collaboration and collegiality for instructional improvement. Schein (2002) posits that in order for change to occur, the change has to be integrated into the total psychic framework and has to be supported by others whose
perceptions the person cares about. Learning the content and planning the in-service took a tremendous amount of time. The PLC members’ commitment to taking this personal time ultimately helped them to cope with the stress imposed on them by the District’s time frame.

The third and final coping strategy used to manage stress was the voluntary distribution of certain tasks to one another within the PLC. The PLC members took on the responsibilities for creating the slides as part of the Power Point presentation, for answering unique disciplinary questions, and for providing supplemental information pertaining to the Marzano Model. This notion of taking on particular tangible tasks was specific to this practice-based research. However, assuming responsibilities within the PLC is supported by evidence in the research on establishing high trust environments and team work (DeFlaminis, 2011; Harris & Jones, 2010; Senge, 1990; and Spillane, 2006).

Conclusion Three: Learning through Collective Inquiry Requires Successive Cycles of Learning and Application; Learning the Model by Breaking it Down, Generating Research and New Ideas, Applying First to Personal Practice, Then Being a Conduit for Application of Colleagues’ Practices.

The PLC members used the process of collective inquiry to develop shared meanings of the Marzano Model and the strategies in the model, and to determine how they could be applied to PLC members’ personal instructional practice. This process of learning included successive cycles of learning and application. PLC members developed deep understanding of the model by breaking it down into component parts, and by negotiating the meaning of the model. Additionally, adopting the strategies and thus changing their teaching behavior, required PLC members to apply the strategies within their own classrooms and determine their effect on
students. Further change occurred through the feedback received from teaching colleagues during the formal in-service as they shared practical examples of the strategies being used in their classrooms.

The literature on PLCs supports the notion that the process of collective inquiry is necessary for effective learning to take place. Nelson (2008) argues that the development of an inquiry stance is an essential component of PLC work and professional development. Darling-Hammond and McLaughlin (2011) affirm that teacher learning is grounded in inquiry, is connected to and derived from their work with their students, and it involves the sharing of knowledge among educators. Servage (2008) affirms that collaborative work should involve inquiry and problem solving in authentic contexts of daily teaching practices. In this study, collective inquiry and the sharing of knowledge and application took place within the PLCs, at the formal in-service, and informally throughout the schools over a period of a school year. The learning that occurred incorporated contextual classroom examples.

Findings indicate that after the Learning Sciences training sessions, PLC members came to an agreement on the meaning of the model through the process of negotiation. Negotiation allowed interdisciplinary PLC members to create consensus on the meaning of the Marzano Model. As Doug affirmed, “no matter how much time that I spent doing my own research, I didn’t get a full picture until we came back as a group and saw things from different perspectives.” This finding is consistent with Nelson (2008) who states that, “an inquiry stance involves knowledge negotiation among teachers to engage dialogically to develop common understandings about learning, students, curriculum, subject matter, and teaching practices” (p. 551).
Collective inquiry involved reflecting on current classroom practices to determine how they aligned with the Marzano Model. Darling-Hammond & McLaughlin (2011) assert that effective professional development engages teachers in the concrete task of reflection and this reflection activity must be sustained, ongoing, and intensive. PLC members would identify each strategy within each domain and design question and compare it to what they were currently doing in the classroom. This mental comparison activity offered them an opportunity to identify inconsistencies in their personal practices with the Marzano Model, and to admit that they might need to make changes. Spillane and Louis (2002) affirm that to improve practice across schools, teachers need to engage with colleagues to question, unlearn, and (at times) discard their current understandings of teaching, and that this requires them to embrace new practices that they believe will improve student achievement. Excerpts from the interview data reveal the mental comparison activity that took place amongst the PLC members. For example, Caitlin stated “whenever you stop to check for understanding, you are tracking their progress to see they [the students] actually are meeting the ultimate goal, and again, you don't even realize that you are doing [it].” The findings in this study elucidate the sharing of PLC members perceived meaning of the model, how it applied to their practice, and how they might need to make changes in their own personal practices.

The interview data collected inform the personal dialog that took place within the PLC, specifically, breaking the model down, negotiating the meaning, reflecting on both the model and their own practices, and discussing the application of the strategies. This dialog supports understanding an identified gap (Little, 2003) within the current literature on PLCs. For example, as Little, (2003) contends, there is scant research that examines the specific interactions by which the PLC constitutes a resource for teacher learning. This study captured PLC members’
descriptions of their experiences learning, and descriptions of the conversations that took place within their PLC. For example, reflecting on current practices to determine fit with the Marzano Model involved a mental activity of comparing how personal instructional practices were consistent or inconsistent with the Marzano Model domains. By comparing the language used for current practices with the new vocabulary of the Marzano Model, PLC members made connections that enabled them to become resources for their teaching colleagues. In their discussions, the PLC members were able to identify practices similar to those they were currently using, but with a new or different name. This identification of practices (both used and new), and the corresponding vocabulary for the practices, enhanced their ability to collectively learn the model and to become resources for teaching colleagues. This analysis contributes to the research on specific interactions of PLC members during their learning experiences as they prepared themselves to deliver the in-service.

Learning the model required PLC members to apply the strategies in their classroom and provide feedback to each other on how they worked. This practice of evaluating new methods of instruction is supported in the literature regarding using PLCs as an effective form of learning (Darling-Hammond & McLaughlin, 1995, 2011; Garet et al., 2001; Hollins et al., 2004; & Phillips, 2003). For example, Hollins et al., (2004) study included the PLC practices of collaboration, self-reflection, and cross classroom visitation. Typically, a component of PLC professional development requires PLC members to observe teachers in the classroom using the new strategies, and then providing feedback to the presenting teacher regarding their use (Hollins, et al., 2004). In the current study, however, observing other teachers using the practices was not a part of the learning process. In this study, evaluating new methods of instruction by testing the new methods out within their individual classrooms and discussing how they worked or didn’t
work became part of the learning process. This hands-on application of the model by each PLC member in their own classroom provided clarity on what the practices looked like, and how they impacted student learning. This evaluation of the new methods of instruction was a form of experiential learning that reinforced the use of the strategies, and provided a deeper level of knowledge for the PLC members.

This notion of behavior change preceding cognitive change reverts back to the Porras and Silvers (1991) Panned Process of Organizational Change Model, and Burke's (2008) interpretation of it. For example, as stated in Chapter One, the implementation of new classroom strategies, or in this case changes in behavior, may not take place until PLC members have had a chance to practice the strategies as part of a lesson in their own classroom, and reflect on the results. This practice of evaluating new methods of instructions allowed PLC members to experiment with the practices in their own classroom, reflect on the results together, and recommend practical classroom applications to their teaching colleagues based on their own experiences. Thus, the process of collective inquiry becomes more powerfully transformative if over a period of time [in this instance, one year] teachers are given the opportunities to negotiate the meaning of the practices, reflect on them to determine fit with the new model, and to also try them in their classrooms. This application facilitated the transition from knowledge into personal practice as PLC members translated the meaning of the model to each other and their teaching colleagues.

The third and final finding in this conclusion is that the PLC members’ experiences of learning through the process of collective inquiry facilitated translating the model into teaching colleagues’ practices. Thus, PLC members became a conduit for the application of colleagues’ practices. This involved collectively generating multiple examples of the model to other
disciplines. These examples came from the PLC members, and also from teaching colleagues’ feedback during the in-service days and informally during the school day. Thus, the PLC members learned from each other, their teaching colleagues, and their building principals who increased their repertoire of resources as leaders and coaches. It is noted that as the feedback moved outside of the PLC into the teaching practice environment, the change in teaching practices began to take place school-wide. Hartnell-Young (2006) suggest the need for collective interdisciplinary competencies of the people in learning communities, as well as the need for teachers and leaders to cross boundaries across a range of spaces [and topics]. In moving the discussions and application of experiences into the practice environment, systemic change became possible.

Conclusion Four: Advocating for Change Requires Sharing Governance and Promoting Shared Values, First in the PLC and then in the Practice Setting

Findings reveal that advocating for change requires sharing governance and promoting shared values, first in the PLC and then in the practice setting. PLC members were both sensitive to and respectful of each other’s thoughts and feelings regarding change. During learning and sharing governance, feelings of trust developed, and they began to assert themselves as leaders unafraid to critique one another. Additionally, feedback from the PLC members’ personal application of the techniques as well as the teaching colleagues’ experiences trying the new practices promoted a sense of “trial and error,” as well as a collaborative learning community. This collaboration represented a significant change for the schools.

This sharing of governance finding is consistent with the literature on effective PLCs as well as effective professional development. For example, Wenger (1998) argues that sharing
experiences leads to the construction of new meaning as well as cohesion amongst members, which enables members of the community to become more effective in their workplace particularly during times of change. Darling-Hammond and McLaughlin (2011) posit that professional development is collaborative, involves sharing of knowledge among educators, and focuses on teachers’ communities of practice rather than on individual teachers. The sharing of governance identified in this study is supported by the second conceptual framework used to guide this study: Distributed Leadership.

Distributed leadership is defined as leadership that is stretched over knowledgeable individuals in the organization, and includes teachers who are empowered based on their expertise to become a source of leadership in their schools for the purpose of improving teaching and student learning (Bernard, 1938; Spillane, Halverson, & Diamond, 2001, 2004). The notion of shared governance is supported in the research on leadership within PLCs (Harris, 2008; Spillane, Halverson, & Diamond, et al. 2004). The findings indicate that leadership was distributed in the PLCs as they took on roles that supported planning for, and delivering the turn-key. Portions of the interview transcripts that point to the notion of shared governance and distributed leadership include Hanna’s and Elmer’s comments that leadership and decision making were shared within their PLCs, and Nancy who argued that her PLC stepped up and supported each other as leaders. Other elucidations of shared governance include Adam’s remark that “we relied on each other’s expertise,” and Mary who stated, “We felt we were in it together.” PLC members took charge of learning the model and had the sensitivity to yield to each others’ ideas, as well as, the needs for additional learning time. This indicates their respect of, and responsiveness to, the individual learning styles of their colleagues. They did however take charge of the discussions when they
felt strongly about an idea or interpretation. This assertive behavior demonstrates that PLC members perceived themselves as change agents wanting to move the initiative forward.

Findings indicate that PLC members became advocates for change. In the process of sharing governance during collective inquiry, they also promoted shared values. These values included open collaboration which ultimately led to the growth of ideas both within the PLC and in the practice environment. The PLC members made themselves accessible as coaches with the purpose of inspiring teaching colleagues to adopt new practices. As Tom asserted, “they [the PLC] definitely knew they were instrumental in impacting change, no question about it.” The PLC members were available to assist others and according to Janice, “had an open door, come in if you don’t understand something….we’re here for you.”

This evidence is consistent with the research on PLCs and systems change. Burke (2008) affirms that the more that work units [PLCs] are involved in helping to plan and implement change, the more likely they are to embrace the organizational change effort. Wenger (2002) posits that practice is developed through the collaboration of groups of people who share a passion about a topic, and who deepen their knowledge and expertise by interacting on an ongoing basis. Harris and Jones (2011) argue that system wide change is only possible through collaboration and networking with a focus on pedagogical improvement. DeFlaminis (2011) formed teacher lead PLCs that served as a catalyst for change in the school by sharing expertise on specific instructional strategies and by establishing norms of collaboration and collegiality among the school staff. PLC members in the current study advocated for change within their schools. They served as models and coaches, making themselves accessible to their teaching colleagues for help and guidance in initiating the change.
PLC members’ experiences as leaders in the change effort included promoting shared values. Promoting shared values involved helping teaching colleagues move outside of their isolated classroom environments to engage in the collaborative exchange of ideas regarding the Marzano Model and teaching strategies. Two values that were promoted through the leadership of the PLC members were collaboration, or open dialog amongst teaching colleagues, and the ultimate challenging of the status quo teaching practices that were being used within the classrooms. This open and sharing dialog, to the extent that it was occurring within the schools, was a new phenomenon to the teaching staff.

This finding of promoting shared values is consistent with the research on PLCs as collaborative cultures (Nelson, 2008; Nelson & Slavit, 2008, Schein, 1985, & Stoll, et al, 2006). For example, Schein (1985) argues that a culture that enhances learning reflects all stakeholders interests, makes people believe they can impact their environment, encourages open communication, and has approachable leaders. Seashore, Anderson, and Riedel (2003) affirm that PLCs have the capacity to establish a school-wide culture that makes collaboration expected, inclusive, genuine, ongoing, and focused on critically examining practice to improve student outcomes. Burke (2008) posits that self-directed groups enhance culture change in the direction of values that encourage participation, involvement, autonomy and greater teamwork.

With regards to challenging the status quo, Spillane and Louis (2002) affirm that to improve practice, teachers need to engage with colleagues to question, unlearn, and discard their current understandings of teaching. Rethinking practice according to Darling-Hammond and McLaughlin (1995) involves changing expectations about student learning and the strategies used to attain it, and thus, teachers may need to teach in ways that they have not taught before. The conversations, both formal and informal that began to take place in the lobby, in the hallways, and
in the classrooms, were initiated by PLC members and building principals and then embraced and elaborated on by teaching colleagues. Collaborative discussions that challenged status quo teaching practices became visibly evident throughout the schools.

**Section Summary**

Four principal conclusions were drawn from an analysis of the data. First, learning in a safe and open forum with a defined purpose facilitates change in a PLC. Second, learning and leading change in a PLC requires strategies for moving beyond stress to constructive action. Third, learning through collective inquiry in a PLC requires successive cycles of learning and application; learning the model by breaking it down, generating research and new ideas, applying first to personal practice, and then being a conduit for application of colleagues’ practices. Fourth, advocating for change requires sharing governance and promoting shared values, first in the PLC and then in the practice setting. These conclusions demonstrate that learning and leading the learning in a PLC is a dynamic and stressful process with multiple phases.

Essential to change are the feedback loops that evolve within the PLC as they learn through the process of collective inquiry. The feedback loops between the PLC and the building principals were necessary for PLC members to understand the principals’ interpretation of the teaching strategies and the evaluation rubric, thus reducing their learning anxiety. The feedback on PLC members’ application of the strategies to their own personal practices facilitated the process of collective inquiry. These feedback loops moved slowly outside of the PLC during the formal in-services and later, within the school environment as teaching colleagues applied the strategies in their classrooms. Finally, with teaching colleagues learning and applying the model and communicating their experiences, collective inquiry transcended the PLC ultimately impacting the cognition and behavior of all professional staff members in the schools. This
chapter concludes with five sections: general implications, implication for personal practice, limitations, recommendations for future research, and concluding thoughts.

**General Implications**

Findings in this study indicate that using PLCs as a mechanism for change in a public school system may be a viable option for districts faced with implementing state mandated programs with short timelines and limited budgets. In this study, building level teachers assigned the task of collectively learning and leading the learning of their teaching colleagues, performed the task efficiently and effectively. The use of PLCs to provide teacher professional development that takes place within school boundaries is consistent with the research (e.g., Darling-Hammond & McLaughlin, 1995, 2011; Garet et al., 2001; Hollins et al., 2004; & Phillips, 2003). The practice-based research studied here through observations, survey data, and the transcripts of PLC members provides insights regarding accomplishing school based reform and change.

PLC members’ experiences learning and leading the learning of a new teacher evaluation model indicates that the purpose of the task be clearly defined. It also suggests that key stakeholders, including teachers, have input in the selection of the model. For example, the district involved key interdisciplinary teachers, including representation from the teachers’ associating in selecting the model. This *Teacher Evaluation Committee* was given time by the district to learn the nuances of the model and to present it to their committee colleagues. The committee ultimately was given the power to vote on what they believed was the best evaluation model for the district. The agendas and meeting minutes from the work of this committee were shared with administrators and teachers during the course of their work. This suggests the
importance of a democratic, transparent model selection process with no hidden agendas from administration.

The success of this initiative may be attributed to other factors as well. For example, the student researcher, as director of curriculum had a vision for using professional learning communities to implement a highly volatile new initiative. She had significant background knowledge on PLCs based on her own research and practice work with staff committees. As part of a district decision to promote more collaborative cultures in the schools, Professional development on PLCs was organized early in 2011 for the district and building level administrators. Here they had an opportunity to self reflect on their own use of building level PLCs and create goals for establishing them in their schools as part of everyday operations. This training was done well in advance of the districts intention to use PLCs for learning and leading the new evaluation system. It did however; provide a learning platform that allowed for launching the turn-key initiative. She also had a positive working relationship with the key decision maker, the superintendent. Additionally, both had complimentary leadership styles and understood the magnitude of the state mandate. They shared perspectives on the value of collaborative learning and the power of leadership distributed in teacher teams. The curriculum director was given great latitude in designing the implementation process with complete trust of the superintendent.

Other factors that contributed to the success of this initiative involve the personality and leadership style of the student researcher as director of curriculum for the district. In addition to the positive working relationship with the superintendent, she had an open and collaborative relationship with the building principals. As a change agent, she was vigilant in being inclusive of all key stakeholders in decision making; taking time to build caring and trusting relationships,
and being extremely supportive in all matters of educational leadership [discipline, curriculum, budgeting, operations, community outreach, etc.]. The curriculum director worked diligently with the superintendent and board of education to support the needs of the principals, their teachers, and their programs. She also had over ten years of high school teaching experience and ten years of experience as a building and district administrator.

The implications for leading learning using a PLC structure suggest the need for collective inquiry over a period of time. PLC members need time to research and deeply learn the content. They also need to apply the strategies in their own classroom without being evaluated by the administration. Feedback must be open and accessible with the building administration. This affirms the learning process and helps to reduce the anxiety of learning, and leading the change. A safe environment, free of interruptions or outside scrutiny allows for sharing self reflections regarding practice. PLC members need to feel safe sharing the knowledge that their practices may, or may not be, the best classroom instruction. This space allows them to be vulnerable, and to put their egos aside so that they can learn openly. It also provides opportunities to brainstorm changes to practice. The distribution of leadership, or the sharing of governance, builds trust, respect and a comfort level with critiquing others’ ideas. The growth of ideas emerge with feedback from each other, the building principals, and later, with teaching colleagues. With both formal and informal feedback networks, whole system change in teaching practices begins to emerge. Sustaining that change requires ongoing discussions at building and district meetings, in one on one post observation conferences, and through continued dialog with key stakeholders district wide including the superintendent. It is suggested that using PLCs in this manner is a cost effective way to provide professional development that promotes the learning and leadership necessary to affect system wide change.
The first implication of this study is that the purpose assigned to the PLC be very specific. PLC members were tasked with learning the Marzano Causal Teacher Evaluation Model and turn-keying it to their teacher colleagues. PLC members embraced this task with passion and a commitment to interact with purpose (Wenger, 2002). They experienced a strong sense of accountability to the district in achieving the purpose. Ann describes this phenomenon, “We were personally invested in getting teachers the right information;” and Hanna and Sally state, “we were committed to making the presentation a success.”

The tasks of learning the model and planning its delivery to colleagues took time and effort. It is incumbent upon the district when directing this kind of change that PLC members be provided with time to work uninterrupted together during the school day. PLC members were given release time from class with substitute coverage for their classes in order to complete their work together. These same teachers demonstrated their dedication to the task by staying late into the evening and were recognized by their principals for doing so. This ongoing recognition by the principals as well as the district was supportive and encouraging.

The second implication for the success of this study is that feedback loops be obvious and continuously available. Feedback loops are built and sustained over time. Feedback takes place within the PLC as they learn, reflect on their current practices, and discuss their weaknesses. Feedback from building administrators is essential to supporting and affirming the change process. Administrators need to be on hand to PLC members both individually and as a group. Additionally, as a district administrator, feedback should be available from the school district, from the state department of education, and other districts who may be implementing similar change. The magnitude of this type of change initiative requires that the system promote open communication within the PLC, within the schools, and within the district. This provides an
environment for learning that is completely transparent to all stakeholders. It allows PLC members, teaching colleagues, and administrators to brainstorm ideas without fear of going beyond any perceived line of authority. It ultimately allows a school community to take control of and reinforce its own learning.

As noted in the findings, this type of change is extremely stressful for educators. Having access to the administration helped to ease the stress. Administrator presence and availability added their perspectives and expectations regarding the evaluation rubric. For example, as Bob describes his perception of having an administrator present during the in-service:

when the room started getting tense a little administrative approval or reassurance brought the room back down, so a new topic comes up which I delivered and then the administrator could sort of counter that and bring the tension in the room back down and so everyone really stayed pretty even keel and there were no threats of a riot in the room.

The administrators affirmed the PLC members’ decisions and added credibility to their presentations. They also provided a level of psychological safety (Schein, 2002) that permitted PLC members to think spontaneously and not fear being wrong about a certain point. Thus, it is imperative that the entire educational system operate in such a way as to be learning together and to be experiencing the learning anxiety together (Schein, 2002). The importance of feedback is consistent with the research on organizational change (e.g., Fullan 2008a, 2008b; Fullan & Hargreaves 1996; & Fullan, Hill, & Crevola, 2006).

The third implication is that PLC members be given the opportunity to evaluate the new methods of instruction. This component of learning is essential to practice and as Mary affirms, “I felt more comfortable and confident with the Marzano strategies [after trying them].” Bob
states, “You look more carefully at materials you are going to deliver and the method of delivery,” and Adam argues, “there's this trust level, because, the information is coming from “one of their own.” Testing out the new methods gave PLC members the confidence to advocate for these methods. They had experienced the practices in their classes and could comfortably discuss how they worked with teaching colleagues.

This notion of behavior change preceding cognitive change was discussed in Chapter One. Burke (2008) writes that the Porras and Silvers (1991) model is a linear depiction of how organization change occurs and that in order to account for change at the larger, complex organization level, theories and concepts that are nonlinear should be considered. Weick and Quinn (1999) describe the process as messy and difficult to sustain, and suggest that organizational change be thought of as a series of loops, taking initiatives, than looping back to correct details missed on the first attempt. This non-linear looping and spiraling may accurately describe the learning that takes place in PLCs charged with the implementation of the teacher evaluation system in this study. For example, by evaluating the new methods of instruction, PLC members located and discussed the strategies, applied them in their classrooms, and determined if they worked or didn’t work. In so doing, PLC members were able to translate the model into their own personal practice, and later, into their teaching colleagues’ assignments. This ‘hands on’ experience added a new dimension to individual and group learning. It provided an opportunity for the PLC members to build consensus on the meaning and outcome of the model with actual practice. It also provided a universal language necessary for all to completely understand the initiative; what it was, how it worked, how it compared with current practices, and what changes needed to be made in order for teachers to be in alignment with it. As Doug describes, “when you have PLC's they’re in the real world and they walk the walk, they not only
talk the talk, but the walk the walk.” This testing of the strategies and the communication of outcomes with each other and teaching colleagues as well as teaching colleagues’ feedback on their application of the practices, contributed to the phenomena of promoting shared values and challenging the status quo. Making the model relevant to all staff encouraged PLC members to seek out feedback from teaching colleagues, which added valuable examples to their teaching resources.

With consistent feedback loops, learning through the process of collective inquiry gradually moved outside of the PLC, and the PLC members became change agents. By embracing feedback from their principal, their teaching colleagues, and each other, the PLCs’ promoted shared values of collaboration and challenged the status quo. Thus, both cognitive and behavioral change was inevitable.

**Implications for Personal Practice**

This study has significantly impacted my understanding of leadership practices that promote teaching and learning. It has also provided me with an understanding of the scope and power of intellectual collaboration in fomenting change. In public education, there is no limit to the human resources [teachers] available in promoting an educational community that values learning. The implications for my own personal practice are many. I will continue to stay abreast of current educational research in areas pertinent to my field of curriculum and instruction. Over my twenty-two years in education I have prided myself on continuing my professional growth through attendance at workshops, my work with the New Jersey Department of Education, my collaborations with surrounding county districts, and my membership in professional organizations. One of the most important roles that I have as a district leader is to build
relationships with my constituent groups, as well as solicit their expertise and feedback on educational decisions.

Because the people change constantly within a district through promotions, retirements, and new hires, building strong professional bonds does not come easily. It takes time that requires active listening, and waiting, similar to what the PLCs experienced during collective inquiry. Until trust is established, it is difficult to take charge of any initiative. This trust is built through trial and error, by being open and vulnerable to others, as well as candidly admitting weaknesses and mistakes. We are all ongoing learners in the field of education. My experiences tell me that democratic structures have been far more effective in getting colleagues to accept change, then authoritative ones. This requires patience and the courage to do the right thing at the right time [and being astute enough to know when that is]. To encourage the kind of self directed learning that takes place in a PLC, motivation needs to be intrinsic. It comes from the personal rewards of doing what we truly believe is morally right for all concerned. It also comes from believing that everyone is supporting you, as well as the vision.

Finally, regarding vision, we can only change that which we truly understand. This requires scholarly and experiential understanding of every detail that impacts change. There can be no assumptions when planning for, and being a part of, system change. I never dreamed this implementation would be so stressful for teachers. It took many interviews with participants and member checking of the data before I realized this. When I finally did, it changed my whole perception of the process. Yes, I would change many things if this type of initiative were to be repeated in the future. I would allow greater time for learning between presentations. I would get district approval for teacher stipends that reflect the amount of time spent learning and leading the learning. I would listen more carefully to the feedback [and complaints] I was getting from staff
and colleagues regarding the intensity of the change. I would add support structures such as access to outside expertise to answer questions. In reflecting on this study, and my vision for implementation, it was not perfect. I am, however, pleased with the results, and will continue to do my best in serving the educational communities that I am privileged to be a part of.

**Limitations of the Research**

There are several limitations of this research which have been highlighted throughout the text of this dissertation. This study was conducted on a practice-based initiative. Due to the state mandate [daily broadcasts from the NJDOE], the district had a clear vision regarding its purpose. The district also had embraced Learning Focused, which gave all stakeholders a common starting point with regards to their learning. The collective inquiry that took place was directed by the domains and elements in the Marzano model and the research supporting them. The implementation of the model had a clear timeline that was state mandated. The district in-service days had been planned the year prior and set on the calendar. Thus, the time to learn the model and teach it was established by both a state and district calendar. I believe that some of the stress experienced by the PLC members may have been reduced if they had more time to learn the model and plan the training. The teachers who were randomly selected from the District Evaluation Advisory Committee (DEAC) by the district to participate in the turn-key were considered some of the best teachers in the district, noted for their willingness to collaborate with others, learn new things, and embrace change. Based on these characteristics, this was a biased sample. The teachers were also paid a small stipend to provide the in-service training. This stipend may have contributed to their motivation and commitment to the turn-key. The four building principals in the study were noted for being collaborative and growth minded, and completely embraced and supported the PLC work. The open communication and theme of ‘we
are all in it together,’ provoked a sense that everyone was learning at the same time, with the same information, and with a certain level of learning anxiety. There was no official accountability mechanism in place with regards to the turn-key [although feedback forms were collected and shared with the DEAC after each in-service]. PLC members and teaching colleagues were free to try the strategies out within their classrooms without being formally evaluated by an administrator. This climate of openness and experimentation limits the study to this district and this practice-based initiative. Many of these limitations however, may serve as implications for practice as cited in the previous section. It is noted, however, that the focus of this qualitative study was to form unique impressions and understandings of events and perceptions, rather than to generalize findings (Creswell, 2009).

**Recommendations for Future Research**

In capturing the words of the PLC, analyzing their words, and categorizing them into specific themes and properties, this qualitative study contributes to the understanding of possible components necessary for districts to facilitate a successful change initiative. Recommendations for future research may include the following:

1. This school and district based reform were specific to this school district. Therefore, it is impossible to know if these findings extend beyond this context. For example, a four school building configuration of PK-2, 3-5, 6-8, and 9-12, with approximately 2700 students in a rural southern New Jersey town. Phillips (2003) argues that effective school change requires customized design at the campus level. It is suggested that expanding the research on mandated change initiatives using PLCs with similar support structures in other district configurations and locations be explored.
2. This study used a small, purposive sample of ten teachers and three administrators. A larger scale qualitative or mixed methods study with a larger sample of study participants could reveal even more information regarding how participants’ learning and leadership experiences contribute to a change initiative.

3. Further research could investigate the sustainability of a major change initiative through the use of ongoing PLCs. For example, by exploring the use of permanent PLCs as support networks, including their feedback and responsibility as a liaison between the teaching staff and the administration, this research could reveal a more descriptive long term leadership experience phenomenon.

4. This study used a sample of teachers that was biased to the extent that they are noted for their knowledge of good teaching strategies, collaborative personalities, and volunteerism in their schools. It is recommended that a more random sample of teachers be drawn into an exploratory study to compare results.

5. This research focused very specifically on a state mandated change. This initiative was specific to a teacher evaluation model and state statutes regarding both the components of the model and the process for implementation. The impact of PLCs on learning and leading in other contexts and with other initiatives should be explored, for example, the implementation of a new curriculum series.

6. This research was conducted over a one year period and included two interviews per participant. A longitudinal study that collects the personal experiences of learning and leadership over several years and infuses quantitative data, could inform the effectiveness of using the PLCs as a mechanism for change.
7. This was a basic qualitative study. It is suggested that future research incorporate data on teacher performance by accessing aggregate teacher evaluation data. Additionally, data based on norm reference tests could inform student achievement. These statistics would demonstrate the effects of the PLC on total school/district outcomes.

8. This research indicated that one of the administrator’s responses used to triangulate the data, did not necessarily agree with the High School PLC members’ perceptions of change in their school. It is suggested that more research be done regarding using PLCs to implement change in a 9-12 school environment.

Concluding Thoughts

The practice-based research conducted at this small district campus using PLCs as a mechanism for change has proven to be transformational. I can honestly report that after 12 years as a director of curriculum in charge of professional development in three different school districts, using professional learning communities to learn a new initiative and to lead the implementation of this change is a highly effective phenomenon. PLC members, who are confident in their abilities, who care about their students and their school community, and who are committed to a district vision, can effectively transform their schools. They need to receive training and be given time to deeply understand what they have learned together through processes of negotiation and reflection. They also need to experience a “sense of psychological safety that it is okay to try something new and to give up something old and familiar” (Schein, 2002, p. 46.); to be able test the new strategies, and determine how they work with their own population of students. It is suggested that the (initial) trial and error of the teaching strategies take place free of either administrative evaluations or peer observations. It is absolutely necessary that communication be open and free flowing both inside and outside the district throughout the
implementation process. This ongoing feedback builds ownership of shared values across the schools. It also maintains feelings of safety for all stakeholders to air their concerns and frustrations with change, and to ultimately embrace it. Purposeful dialog amongst PLC members, teachers, administrators, and other key stakeholders regarding how the strategies are working at different grade levels and in different subject areas is essential. This study concludes that individual development and improved school performance can be achieved using PLCs as a change intervention when a district vision is clearly articulated, and when a strong psychological support network that promotes learning for all stakeholders is in place.
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December, 2013

Dear Educators,

As many of you know, I am a doctoral student at Northeastern University and preparing to conduct research for my dissertation. In order to answer my research questions, I am recruiting educators who participated in building level professional learning communities that planned and delivered the training for the Marzano Causal Teacher Evaluation Model to staff members during the three district in-service days, in the 2012 - 2013 school year. The purpose of my study is to explore how teachers’ describe their learning and leadership experience as members of school level PLCs during the planning and delivery of the professional development sessions.

Selected participants will engage in one audio-recorded interview, approximately seventy minutes in length. Identities will be kept completely confidential. Participation in this study is voluntary and participation or non-participation will not affect your employment status in any way. If you decide to participate, you may withdraw at any time without penalty. The initial interview transcripts will be member-checked by each participant after transcription. Also, once all interviews are complete and preliminary findings have been identified, an executive summary of findings will be emailed to participants for their review as part of a second member-checking exercise. Participants will be asked to email comments or concerns to the researcher no later than one week after receipt of the summary. Findings, including interview excerpts (without identifying information); will be published in my dissertation and other publications.

Participants must feel comfortable communicating and participating in the informed consent process. If you are comfortable with the nature and purpose of this study, are interested in reflecting on your experiences, and would like to participate in research that hopes to inform the process of working in professional learning communities, please respond to my university email address: langfordl@husky.neu.edu by December 11, 2013

Thank you in advance for your interest!

Lyn Langford
609-465-1800 x3102
Appendix B

Interview Guide

Demographic Information

Name__________________________ Grade level/subject___________________

# of years teaching____________ Age range ___20-34 ___35-49 ___50+

Gender ______________ Diversity _____W _____NW

Pseudonym_____________

Introduction/Warm-up (Researcher states the following):

Hello and thank you so much for being a part of this research. The purpose of this study is to explore teachers’ experiences, as members of a professional learning community assigned the task of learning, and leading the learning, of the Marzano Causal Teacher Evaluation System. I plan to ask you several questions that answer my research questions from an interview guide. I will be using this recording device to capture your responses to my questions. If it is okay with you, I would like to begin with a few warm up questions and then move into my research.

Warm-up Questions:

• Please tell me a little bit about who you are as a teacher.

• How do you feel you best learn?

• How do you handle change?

RQ1: How do PLC members describe the purpose/mission of a PLC tasked with implementing a new teacher evaluation system?

1. In your own words, what is a professional learning community?

Follow-up: I will confirm the definition to include a “group structure whereby teachers are empowered to learn, innovate, and share ideas regarding professional development,” (Kennedy, et. al., 2011).

2. Please describe your understanding of the purpose of the building level PLC you were in?

3. Describe what experiences you had as a PLC member that allowed for the achievement, or non-achievement of this purpose?

RQ2: How do PLC members describe their experience of learning through the process of collective inquiry?

The student researcher states....Collective inquiry is questioning the status quo, seeking and testing new methods, and reflecting on results.
4. Tell me how you ‘learned’ working with other teachers in a PLC.

5. How did working with other teachers in a PLC help you question the status quo?
   **Follow-up:** Were there times when your PLC was stuck in the status quo, and if so, how were they able to think outside their comfort zone?

6. How did PLC members bring up and discuss new methods of teaching?
   **Follow-up:** Describe a situation in which you shared and exchanged information on an idea, or new teaching strategy (from Domains 1-3). Why or why not, did this help you learn?

7. Please tell me about any personal behaviors (teaching strategies/attitudes), which have changed over the time period you were learning alongside your PLC colleagues?

8. What experiences do you think contributed to this/these changes in behavior? (What behaviors were reinforced, how did that feel?)
   **Follow-up:** e.g., decisiveness, sharing ideas, patience, assertiveness, stronger voice, trust, leadership?

9. Describe how your experience of learning in a PLC changed from the first session to the last?
   **Follow-up:** Did the language of instruction become more familiar; did your comfort level increase; where there any issues that presented themselves within the PLC?

**RQ3: How do PLC members describe their experience as leaders in this change effort?**

10. What was your experience as a leader of learning during the planning and delivery of the professional development sessions?

11. Please describe if/how leadership was shared among PLC members.

12. Please explain how leadership may have changed from the first in-service to the last.

13. Please give a few examples of how your own leadership impacted change efforts.

We are at the end of the interview. Is there anything else you would like to share?

Thank you so very much for taking the time to be a part of this interview process. Your thoughts and experiences are sincerely appreciated. A rough draft of this transcript will be provided for your review. If there is anything else you would like to add, I welcome it.
Interview Guide – Building Level Administrators

Demographic Information

Name__________________________ Pseudonym__________________

Years as an administrator____________Age range ___20-34 ___35-49 ___50+

Gender ________

Introduction/Warm-up (Researcher states the following):

As you know, I am conducting research on how teacher PLC members learned, and led the learning of the Marzano Causal Teacher Evaluation System. In order to triangulate the data, I would like to get your perceptions, as building level administrators, of the PLC process. In order to do that, I would like to ask you a few questions. Please know that no reports or publications will use information that will identify you in any way.

1. Please describe your understanding of the purpose of the PLCs.

2. Was this purpose achieved, or not achieved using professional learning communities?

3. How do you think the teachers’ viewed their role in implementing change; that is, the implementation of the Marzano Model?

4. How was learning demonstrated by PLC members?

5. How was leadership demonstrated by PLC members?

6. Please explain why or why not; PLCs were an effective mechanism for school change?
Appendix C

Northeastern University
College of Professional Studies

Northeastern University, College of Professional Studies, Education Department
Lyn Langford

“An Exploratory Study Using Professional Learning Communities as a Mechanism for Change”

Dear Educators,

You are invited to take part in a research study that I am conducting under the direction of my doctoral dissertation advisor, Dr. Elizabeth Mahler. This form will tell you about the study, but I will explain it to you first. You may ask me any questions that you have. When you are ready to make a decision, you may tell me if you want to participate or not. You do not have to participate if you do not want to. If you decide to participate, I will ask you to sign this statement and will give you a copy to keep.

You are being asked to participate in this study because you are a teacher who participated in building level professional learning communities, and planned and delivered the Marzano Causal Teacher Evaluation System to staff members during our three in-service days during the 2012 - 2013 school year. There will be approximately 8-12 teachers involved in this study. The purpose of this research is to explore teachers’ perceptions of their learning and leadership in professional learning communities developed to implement the Marzano Causal Teacher Evaluation System. If you decide to participate in this study, you will be asked to take part in one interview that should last approximately seventy minutes. Ten of those minutes will be spent going over this informed consent form. You will be interviewed in your own classroom or building media center or at a time and place that is convenient for you. Interviews will be audio recorded and transcribed. Once all participant interviews are finished and I have written my findings, I will email you a copy of my findings to review. You will be asked to provide feedback via email or telephone.

There are no foreseeable risks and/or discomforts associated with this study. I will be certain to keep interviews at seventy minutes or under in order to avoid inconvenience to you. There will be no direct benefit to you for taking part in this study. However, I am a highly interested listener who cares deeply about your perceptions. Participation will provide you with an opportunity to reflect on your experiences. Information learned from this study may help to plan future professional development and program initiatives.
Your part in this study will be confidential. Only I will see the information about you. No reports or publications will use information that will identify you in any way. I will review interview transcripts and remove all identifying information, including the names of people and places. I will replace these identifiers with code names. All data will be kept in a locked file cabinet. This consent form will be maintained in a locked drawer for three years after completion of the study. All other identifiable data will be destroyed within one year of completion of this study. In rare cases, authorized people may request to see research information about you and other people in this study. This is done to make sure the research is done properly. I will only permit people who are authorized by organizations such as the Northeastern University Institutional Review Board to see this information.

No special arrangements will be made for compensation or for payment of treatment solely because of your participation in this research. Your participation in this research is entirely voluntary. You do not have to participate if you do not want to. Even if you start the study, you may quit at any time. If you do not participate or if you decide to quit, you will not lose any rights, benefits, or services that you would otherwise have as a teacher in Middle Township.

If you have any questions or problems, please contact me at 609-399-7250 (home), 609-703-3567 (cell), or via email at langfordl@husky.neu.edu. You may also contact Dr. Elizabeth Mahler at e.mahler@neu.edu. If you have any questions about your rights in this research, you may contact Nan C. Regina, Director, Human Subject Research Protection, 960 Renaissance Park, Northeastern University, Boston, MA 02115. Tel: 617.373.4588, Email: irb@neu.edu. You may call anonymously if you wish.

I agree to take part in this research.

______________________________________________  ______________________________
Signature of person agreeing to take part             Date
______________________________________________
Printed name of person above

______________________________________________  ______________________________
Signature of person who explained the study to the Participant above and obtained consent
Date

______________________________________________
Lyn Langford
Printed name of person above
Appendix D

Professional Development Survey

School/District Name: All Schools/ Middle Township  Date of Session: October 5, 2012

Session Topic: Domain 1 – Marzano Teacher Evaluation System

Staff Developer: Building Level PLCs

Select your current role in the district:
- Superintendent
- Assistant Superintendent
- Curriculum Coordinator
- Technology Coordinator
- Principal – Elem__MS__HS__
- Asst./Vice Principal – Elem__MS__HS__
- Coach – Elem__MS__HS__
- Teacher – Elem__MS__HS__
- Other, please specify: _________________

Please rate the following:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Opinion</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The training had clearly defined goals for learning.</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>The content will prepare me to take action in my area of responsibility.</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>The learning activities and discussions deepened my knowledge of the</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>content.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The facilitator was knowledgeable and could answer my questions.</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>The facilitator monitored the engagement level of the participants and</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>modeled multiple engagement strategies.</td>
<td></td>
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</tr>
<tr>
<td>The facilitator monitored the pace of the delivery to meet the needs of</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>the group.</td>
<td></td>
<td></td>
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</tbody>
</table>

What was most valuable for you as a participant?
______________________________________________________________________

What suggestions do you have to help us improve future sessions of today’s training?
______________________________________________________________________

What suggestions do you have for future professional development in this model?
______________________________________________________________________

What follow-up support and training would be helpful in supporting your implementation?

- Data Dialogues
- Face-to-Face Professional Learning Sessions
- Mentoring/Coaching
- On-line Coaching
- Other, please specify: _________________
- Phone Conferencing
- Shadow Walkthroughs
- Webinar
- Video Conferencing

Thank you for your feedback. Please hand the completed survey to your principal or PLC Member.